

Triumph Gulf Coast,  
Inc.  
Application for Funds

Submitted by

The  
Okaloosa County School District  
April, 2021

## **Triumph Gulf Coast, Inc. Trust Fund Application for Funds**

Proposal Instructions: The Triumph Gulf Coast, Inc. Trust Fund Grant Application must be completed by the entity applying for the grant and signed, as applicable, by either the individual applying for funds, an individual authorized to bind the entity applying for funds, a chief elected official, the administrator for the governmental entity or their designee. Please read the Application carefully as some questions may require a separate narrative to be completed. In addition, please complete all Addendums that may be applicable to the proposed project or program.

Triumph Gulf Coast, Inc. will make awards from available funds to projects or programs that meet the priorities for economic recovery, diversification, and enhancement of the disproportionately affected counties. Triumph Gulf Coast, Inc. may make awards for:

- Ad valorem tax rate reduction within disproportionately affected counties;
- Local match requirements of s. 288.0655 for projects in the disproportionately affected counties;
- Public infrastructure projects for construction, expansion, or maintenance which are shown to enhance economic recovery, diversification, and enhancement of the disproportionately affected counties;
- Grants to local governments in the disproportionately affected counties to establish and maintain equipment and trained personnel for local action plans of response to respond to disasters, such as plans created for the Coastal Impacts Assistance Program;
- Grants to support programs that prepare students for future occupations and careers at K-20 institutions that have campuses in the disproportionately affected counties. Eligible programs include those that increase students' technology skills and knowledge; encourage industry certifications; provide rigorous, alternative pathways for students to meet high school graduation requirements; strengthen career readiness initiatives; fund high-demand programs of emphasis at the bachelor's and master's level designated by the Board of Governors; and, similar to or the same as talent retention programs created by the Chancellor of the State University System and the Commission of Education; encourage students with interest or aptitude for science, technology, engineering, mathematics, and medical disciplines to pursue postsecondary education at a state university or a Florida College System institution within the disproportionately affected counties;
- Grants to support programs that provide participants in the disproportionately affected counties with transferable, sustainable workforce skills that are not confined to a single employer; and
- Grants to the tourism entity created under s. 288.1226 for the purpose of advertising and promoting tourism and Fresh From Florida, and grants to promote workforce and infrastructure, on behalf of all of the disproportionately affected counties.

Pursuant to Florida Law, Triumph Gulf Coast, Inc. will provide priority consideration to Applications for projects or programs that:

- Generate maximum estimated economic benefits, based on tools and models not generally employed by economic input-output analyses, including cost-benefit, return-on-investment, or dynamic scoring techniques to determine how the long-term economic growth potential of the disproportionately affected counties may be enhanced by the investment.
- Increase household income in the disproportionately affected counties above national average household income.
- Leverage or further enhance key regional assets, including educational institutions, research facilities, and military bases.
- Partner with local governments to provide funds, infrastructure, land, or other assistance for the project.
- Benefit the environment, in addition to the economy.
- Provide outcome measures.
- Partner with K-20 educational institutions or school districts located within the disproportionately affected counties as of January 1, 2017.
- Are recommended by the board of county commissioners of the county in which the project or program will be located.
- Partner with convention and visitor bureaus, tourist development councils, or chambers of commerce located within the disproportionately affected counties.

Additionally, the Board of Triumph Gulf Coast, Inc. may provide discretionary priority to consideration of Applications for projects and programs that:

- Are considered transformational for the future of the Northwest Florida region.
- May be consummated quickly and efficiently.
- Promote net-new jobs in the private sector with an income above regional average household income.
- Align with Northwest Florida FORWARD, the regional strategic initiative for Northwest Florida economic transformation.
- Create net-new jobs in targeted industries to include: aerospace and defense, financial services/shared services, water transportation, artificial intelligence, cybersecurity, information technology, manufacturing, and robotics.
- Promote industry cluster impact for unique targeted industries.
- Create net-new jobs with wages above national average wage (*e.g.*, similar to EFI QTI program, measured on graduated scale).
- Are located in Rural Area of Opportunity as defined by the State of Florida (DEO).
- Provide a wider regional impact versus solely local impact.
- Align with other similar programs across the regions for greater regional impact, and not be duplicative of other existing projects or programs.
- Enhance research and innovative technologies in the region.
- Enhance a targeted industry cluster or create a Center of Excellence unique to Northwest Florida.
- Create a unique asset in the region that can be leveraged for regional growth of targeted industries.

- Demonstrate long-term financial sustainability following Triumph Gulf Coast, Inc. funding.
- Leverage funding from other government and private entity sources.
- Provide local investment and spending.
- Are supported by more than one governmental entity and/or private sector companies, in particular proposed projects or programs supported by more than one county in the region.
- Provide clear performance metrics over duration of project or program.
- Include deliverables-based payment system dependent upon achievement of interim performance metrics.
- Provide capacity building support for regional economic growth.
- Are environmentally conscious and business focused.
- Include Applicant and selected partners/vendors located in Northwest Florida.

Applications will be evaluated and scored based on compliance with the statutory requirements of the Triumph Gulf Coast legislation, including but not limited to the priorities identified therein and the geographic region served by the proposed project or program.

## **Applicant Information**

**Name of Entity/Organization:** The School Board of Okaloosa County, Florida

### **Background of Applicant Individual/Entity/Organization:**

The Okaloosa County School District (OCSD) is home to approximately 32,000 K-12 students who attend forty-two public (42) schools, three of which are public charter schools. A fourth charter school is scheduled to open fall 2021. Okaloosa County is home to Eglin Air Force Base, Hurlburt Field, and the 7<sup>th</sup> Special Forces group and is privileged to count the 6,000 dependents of active duty military personnel among its students (approximately 20% of our enrollment). The large military footprint in Okaloosa County has resulted a significant hi-tech presence in the area that supports the military mission and provides significant internship and employment opportunities for our students. OCSD is active in developing and implementing Career Technical Education programs that provide numerous certification opportunities for students and has a proven track record of success in this area.

OCSD is a High Performing School District as determined by the Florida Department of Education. Over the last eleven years, only one school district in the state has earned this distinction more times than Okaloosa. To earn High Performing status, a school district must earn an “A” for two consecutive years, have no district-operated schools earning an “F”, maintain all class size requirements, and have no instances of material weakness or noncompliance noted in their annual financial audit.

**Federal Employer Identification Number:** 596000764

### **Contact Information:**

**Primary Contact Information:** Steve Horton

**Title:** Assistant Superintendent – School Operations

**Mailing Address:** 202A Hwy 85N Niceville, FL 32578

**Phone:** (850) 689-7117

**Email:** hortons@okaloosaschools.com

**Website:** www.okaloosaschools.com

**Identify any co-applicants, partners, or other entities or organizations that will have a role in the proposed project or program and such partners proposed roles.**

The School Board of Okaloosa County will be the sole applicant for the Triumph Grant funding in this application. The district will solicit contract services from the University of Florida to include curriculum development, teacher training during the startup period, and for continued program development and expansion in the out years of the proposal. Dr. Nancy Ruzycki, as Senior Lecturer and the Director of Undergraduate Laboratories at the University of Florida’s Herbert Wertheim College of Engineering, has key strategic partners and grants to bring in support, as appropriate, to Okaloosa County including: Microsoft, Citrine, IBM, nanoHUB, Pitsco, Ardiono, Minds-I, IFI,

Vernier, Pasco, Texas Instruments, FLATE, Florida High Tech Corridor, Florida Makes, as well as grants with or pending to Department of Defense, National Science Foundation, United Engineering Foundation, and US Department of Education. Additionally, the District has and will continue to develop relationships with area military (Eglin AFB, Hurlburt Field) and industry to serve on advisory boards to ensure that the outcomes associated with this program are credential-based, forward-thinking, and place Okaloosa County students in the best position to succeed and support the overall economic development of the region. OCSD plans to enter into an agreement with The University of Florida Research & Engineering Education Facility (REEF) to house summer programs for students that can lead to students earning industry certifications in non-traditional ways, including outside of the school day.

**Total amount of funding requested from Triumph Gulf Coast: \$2,840,000**

**Has the applicant in the past requested or applied for funds for all or part of the proposed project/program?**

☐ Yes      ☒ No

**Describe the financial status of the applicant and any co-applicants or partners:**

The School Board of Okaloosa County is in sound financial condition. The most recent independently Audited Financial Statements through June 30, 2020 are attached to this application as Attachment A.

**Has the applicant or any co-applicants, partners or any associated or affiliated entities or individuals filed for bankruptcy in the last ten (10) years?**

☐ Yes      ☒ No

## **Eligibility**

### **1. Purpose of the proposed project:**

- Grants to support programs that prepare students for future occupations and careers at K-20 institutions that have campuses in the disproportionately affected counties. Eligible programs include those that increase students' technology skills and knowledge; encourage industry certifications; provide rigorous, alternative pathways for students to meet high school graduation requirements; strengthen career readiness initiatives; fund high-demand programs of emphasis at the bachelor's and master's level designated by the Board of Governors; and, similar to or the same as talent retention programs created by the Chancellor of the State University System and the Commission of Education, encourage students with interest or aptitude for science, technology, engineering, mathematics, and medical disciplines to pursue postsecondary education at a state university or a Florida College System institution within the disproportionately affected counties.
- Grants to support programs that provide participants in the disproportionately affected

counties with transferable, sustainable workforce skills that are not confined to a single employer.

2. **Provide the title and a detailed description of the proposed project or program, including the location of the proposed project or program, a detailed description of, and quantitative evidence demonstrating how the proposed project or program will promote economic recovery, diversification, and enhancement of the disproportionately affected counties, a proposed timeline for the proposed project or program, and the disproportionately affected counties that will be impacted by the proposed project or program.**

**Project Title:** Artificial Intelligence Learning Institutes

**Project Location:** Okaloosa County

The Okaloosa County School District recognizes the intensity and pace at which the field of artificial intelligence is advancing and has identified a gap in K-12 education not only in Northwest Florida but throughout the state. OCSD is intent on developing a transformational program that produces students with industry-recognized credentials in AI and related fields that will provide them with more access to careers that are evolving faster than ever before. In doing so, OCSD will be promoting the ongoing economic recovery of Northwest Florida.

The Okaloosa County School District will develop and implement a model program in Artificial Intelligence/Machine Learning with the intention of producing 1,100 additional industry certifications for K-12 students over a six-year period. A list of proposed certifications can be found on pg.9. OCSD will engage the University of Florida for curriculum development and teacher training. Specifically, the UF's Herbert Wertheim College of Engineering is expanding its EQuIPD grant (Engaging Quality Instruction through Professional Development) to work directly with OCSD on its AI initiative. *(See Attachment B for EQuIPD statement of preliminary work/deliverables to OCSD.)*

For the purpose of this program, **Artificial Intelligence** is defined as the use of computers for decision making. This can include computer programming, no-code, simulations, or instructional activities which do not involve computers to demonstrate how AI works for students at all levels. **Machine Learning** is the ability of computers to learn from data sets provided to them to inform decision making. AI/ML impacts every industry in Northwest Florida. Drone technology will be a significant component to the AI Learning Institutes. **Drones** are small US made robotics which can contain sensors, probes and cameras to map and record information as data to be used by students. Drones can be land based or air based, and can be run either through controllers or autonomously.

Program development, teacher training and student recruitment will occur in the 2021-2022 school year. AI coursework and certification opportunities will begin in the 2022-2023 school year at 4<sup>th</sup>, 7<sup>th</sup> and 11-12<sup>th</sup> grades in a minimum of one pilot school for each level. The program will be expanded to additional grade levels and locations to be determined in the following year.

#### **Connections to Existing Curriculum**

- Okaloosa Elementary schools began Kids C.O.D.E in 2020-2021, which teaches coding skills to 4<sup>th</sup> grade students in an afterschool format. This existing program will serve as an important

springboard to AI curriculum and Digital Tools outcomes for elementary students.

- Middle School STEMM programs provide the knowledge and skills need to thrive in tomorrow's world. Students will dive into knowledge through project-based, hands-on learning and engaging class discussions which allows them to identify their interests and passions. Students learn about the seven areas of technology as they expand their skills, knowledge, digital literacy, leadership and problem-solving abilities.
- Several Middle and High schools in Okaloosa County are currently using drones as part of their curriculum. AI/ML will be built into drone curriculum through the UF curriculum development process.

**3. Explain how the proposed project or program is considered transformational and how it will affect the disproportionately affected counties in the next ten (10) years.**

K-12 schools have a responsibility to continue to revise curriculum in Career Technical Education to ensure students are well-prepared to enter the work force. K-12 programs that provide students with identifiable, industry-focused skills in Artificial Intelligence simply do not exist despite the fact that our world will function very differently in ten years due to AI. The Artificial Intelligence Learning Institutes Program will give students from Okaloosa County an advantage when entering a career or continuing to postsecondary education which will help to transform the area.

An additional impact on Okaloosa County and other surrounding counties will be realized in K-12 education. One of the critical factors that businesses consider when relocating is the quality of public education. Initiatives such as the Artificial Intelligence Learning Institutes provide direct evidence to industry that our schools can serve as national models for Career Technical Education.

**4. Describe data or information available to demonstrate the viability of the proposed project or program.**

OCSD has a documented history of establishing successful Career Technical Education programs that produce industry certifications and students who are ready to enter the workforce or postsecondary training. The commitment to the success of each new program on the part of the Superintendent, School Board, School Principals and Classroom Teachers is in place.

**5. Describe how the impacts to the disproportionately affected counties will be measured long term.**

A school district is most successful when it provides opportunities for students to gain skills and credentials that meet the demands of the workforce they will be entering after graduation from high school or after postsecondary education. The district anticipates 1,100 industry certifications to be earned by students during the first six years. The format of AI education beyond five years is uncertain and the program design could look significantly different beyond that timeline. Increased per capita wages are expected long-term outcomes from this program which will enhance quality of life for residents.



6. **Describe how the proposed project or program is sustainable. (Note: Sustainable means how the proposed project or program will remain financially viable and continue to perform in the long-term after Triumph Gulf Coast, Inc. funding.)**

As with other Career Technical Education programs in Okaloosa County, the Artificial Intelligence program will be self-sustaining through the Florida Education Finance Program (FEFP) funding for students, CAPE funding for earned industry certifications and Carl Perkins Grant funding. OCSD will seek additional grant funding from a variety of sources as needed.

7. **Describe how the deliverables for the proposed project or program will be measured.**  
Deliverables will be in the form of 1,100 additional industry certifications earned by students over the life of the Triumph grant. Planned certifications will include USINS001 Small UAS (sUAS) Safety Certification: Level 1; USINS002 Visual Line of Sight System Operator (VSO) Ground; ADESK011 Autodesk Certified User – Inventor; MICRO112 Microsoft Technology Associate (MTA) - Introduction to Programming Using Python; CERTI803 IC3 - Computing Fundamentals Digital Tools; CERTI802 IC3 Spark.

## **Priorities**

1. **Please check the box if the proposed project or program will meet any of the following priorities (check all that apply):**

- ☒ Increase household income in the disproportionately affected counties above national average household income.
- ☒ Leverage or further enhance key regional assets, including educational institutions, research facilities, and military bases.
- ☒ Provide outcome measures.
- ☒ Partner with K-20 educational institutions or school districts located within the disproportionately affected counties as of January 1, 2017.
- ☒ Are recommended by the board of county commissioners of the county in which the project or program will be located.

2. **Please explain how the proposed project meets the priorities identified above.**

**Priority: Increase household income in the disproportionately affected counties above national average household income.**

Certification-based programs increase household income in two ways: Recognized industry certifications can 1) increase earning potential for those entering the workforce upon graduation and 2) save families money when students choose to continue their education at the postsecondary level because certifications can articulate to college and career prep credit.

**Priority: Leverage or further enhance key regional assets, including educational institutions, research facilities, and military bases**

OCSD will contract with the University of Florida's Herbert Wertheim College of Engineering

to provide curriculum development and teacher training and will seek additional partnerships with military and local industry for additional expertise, mentoring, and apprenticeship and employment opportunities.

**Priority: Provide outcome measures.**

**Fig. 1**

Okaloosa County School District  
Artificial Intelligence Certification Program  
Proposed Timeline for Additional Industry Certifications

	Year1	Year2	Year3	Year4	Year5	Year6	Total
Increased Industry Certifications	Curriculum Development, Recruitment, Teacher Training	50	200	250	300	300	1100
<p>Certifications will be identified in cooperation with UF and industry partners to ensure outcomes meet industry needs at that time. Some certifications will be identified from the CAPE funding list. New certifications will be identified and proposed for CAPE funding eligibility and will be included with the currently identified list of certifications and Digital Tools Certificates.</p> <p>USINS001 Small UAS (sUAS) Safety Certification: Level 1  USINS002 Visual Line of Sight System Operator (VSO) Ground  ADESK011 Autodesk Certified User – Inventor  MICRO112 Microsoft Technology Associate (MTA) - Introduction to Programming Using Python  CERTI803 IC3 - Computing Fundamentals Digital Tools; CERTI802 IC3 Spark</p>							

**Priority: Partner with K-20 educational institutions or school districts located within the disproportionately affected counties as of January 1, 2017.**

The University of Florida's Research & Engineering Education Facility (REEF) is located in Okaloosa County and will work with OCSD to provide facility space for summer programs or classroom space during the year as appropriate. OCSD also has existing articulation agreements with local postsecondary institutions for traditional dual enrollment and career technical dual enrollment with Northwest Florida State College and Okaloosa Technical College and is positioned to expand with postsecondary partners to expand upon our model.

**Priority: Are recommended by the board of county commissioners of the county in which the project or program will be located.**

The Artificial Intelligence Learning Institutes program will be submitted to the Okaloosa County Board of County Commissioners for recommendation at the first available meeting.

**3. Please explain how the proposed project or program meets the discretionary priorities identified by the Board.**

- **Are considered transformational for the future of the Northwest Florida region.**  
K-12 schools have a responsibility to continue to revise curriculum in Career Technical Education to ensure students are well-prepared to enter the work force. K-12 programs that provide students with identifiable, industry-focused skills in Artificial Intelligence simply

do not exist despite the fact that our world will function very differently in ten years due to AI. The AI Learning Institutes Program will give students from Okaloosa County an advantage when entering a career or continuing to postsecondary education which will help to transform the area.

- **May be consummated quickly and efficiently.**  
The program will produce certifications by Year 2 as indicated in Figure 1.
- **Align with Northwest Florida FORWARD, the regional strategic initiative for Northwest Florida economic transformation.**

The Artificial Intelligence Learning Institutes will support the following Northwest Florida FORWARD strategies:

- Increase employability skills training programs to reduce employment barriers for all students and adults, with a particular focus on underserved populations.
  - Expand work-based learning and career exploration opportunities for students.
  - Further leverage the manufacturing academies model to expand the promotion of science, technology, engineering, and math (STEM) programs and technical skills development as early as grade school to build long-term talent supply in the region.
- **Align with other similar programs across the regions for greater regional impact, and not be duplicative of other existing projects or programs.**

OCSD has not identified duplicative programs across the region. Once the program is established, OCSD will export the model to other districts in the region.

4. **In which of the eight disproportionately affected county/counties is the proposed project or program located? (Circle all that apply)**

Escambia Santa Rosa Okaloosa Walton Bay Gulf Franklin Wakulla

The project will be located in Okaloosa County but will be replicable in the remaining disproportionately affected counties as well as other locations.

5. **Was this proposed project or program on a list of proposed projects and programs submitted to Triumph Gulf Coast, Inc., by one (or more) of the eight disproportionately affected Counties as a project and program located within its county?**

☐ Yes ☒ No

6. **Does the Board of County Commissioners for each County listed in response to question 5, above, recommend this project or program to Triumph?**

☐ Yes ☒ No (Project is being submitted for Okaloosa BOCC recommendation)

## **Approvals and Authority**

1. **If the Applicant is awarded grant funds based on this proposal, what approvals must be obtained before Applicant can execute an agreement with Triumph Gulf Coast, Inc.?**

As Applicant, the School Board of Okaloosa County must approve this application and any contract that arises from this application.

2. **If approval of a board, commission, council or other group is needed prior to execution of an agreement between the entity and Triumph Gulf Coast:**
  - A. **Provide the schedule of upcoming meetings for the group for a period of at least six months. (See Below)**

### **SCHOOL BOARD OF OKALOOSA COUNTY 2021 REGULAR MEETING SCHEDULE**

<b>DEADLINE FOR SUBMITTING ITEMS Wednesday – 4:00 p.m.</b>	<b>WORKSHOP Thursday - 9:00 a.m.</b>	<b>BOARD MEETING Monday - 6:00 p.m.</b>
December 16, 2020	January 7	January 11
January 13	January 21	January 25
January 27	February 4	February 8
February 10	February 18	February 22
February 24	March 4	March 8
March 10	March 18	March 22
March 31	April 8	April 12
April 14	April 22 Workshop Cancelled (Spring Break)	April 26
April 28	May 6	May 10
May 12	May 20	May 24
June 2	June 10	June 14
June 16	June 24	June 28
June 30	July 8	July 12 Request to Advertise Budget
July 14	July 22	July 26 (**Preliminary & Tentative Budget Hearing 6:15 p.m.)
July 28	August 5	August 9
August 11	August 19	August 23
September 1	September 9	September 13 (**Final Budget Hearing–6:15 p.m.) (Superintendent's Annual Financial Report)
September 15	September 23	September 27
September 29	October 7	October 11
October 13	October 21	October 25
October 27	November 4	November 8
November 22 Regular Meeting cancelled due to holiday		
December 1	December 9	December 13
December 27 Regular Meeting cancelled due to holiday		

\*\*Tentative dates for fiscal year 2021-2022 budget hearings

- B. State whether that group can hold special meetings, and if so, upon how many days' notice.**

The School Board of Okaloosa County can hold special meetings upon seven (7) days notice.

- 3. Describe the timeline for the proposed project or program if an award of funding is approved, including milestones that will be achieved following an award through completion of the proposed project or program.**

Okaloosa County School District  
Artificial Intelligence Certification Program  
Proposed Timeline for Additional Industry Certifications

	Year 1 2021-2022	Year 2	Year 3	Year 4	Year 5	Year 6	Total
Increased Industry Certifications	Curriculum Development, Recruitment, Teacher Training	50	200	250	300	300	1100
<p>Certifications will be identified in cooperation with UF and industry partners to ensure outcomes meet industry needs at that time. Some certifications will be identified from the CAPE funding list. New certifications will be identified and proposed for CAPE funding eligibility and will be included with the currently identified list of certifications and Digital Tools Certificates.</p> <p>USINS001 Small UAS (sUAS) Safety Certification: Level 1  USINS002 Visual Line of Sight System Operator (VSO) Ground  ADESK011 Autodesk Certified User – Inventor  MICRO112 Microsoft Technology Associate (MTA) - Introduction to Programming Using Python  CERTI803 IC3 - Computing Fundamentals Digital Tools; CERTI802 IC3 Spark</p>							

- 4. Attach evidence that the undersigned has all necessary authority to execute this proposal on behalf of the entity applying for funding. This evidence may take a variety of forms, including but not limited to: a delegation of authority, citation to relevant laws or codes, policy documents, etc. In addition, please attach any support letters from partners.**

1001.33, F.S. Schools under control of district school board and district school superintendent.  
– Except as otherwise provided by law, all public schools conducted within the district shall be under the direction and control of the district school board with the district school superintendent as executive officer.

### **Funding and Budget:**

Pursuant to Section 288.8017, F.S., awards may not be used to finance 100 percent of any project or program. An awardee may not receive all of the funds available in any given year.

- 1. Identify the amount of funding sought from Triumph Gulf Coast, Inc. and the time period over which funding is requested.**

This project seeks \$2,840,000 from Triumph Gulf Coast, Inc. over a six-year period.

2. What percentage of total program or project costs does the requested award from Triumph Gulf Coast, Inc. represent? (Please note that an award of funding will be for a defined monetary amount and will not be based on percentage of projected project costs.)

49.8%

3. Please describe the types and number of jobs expected from the proposed project or program and the expected average wage.

OCSO students will earn 1,100 additional industry certifications over six years which has the potential to greatly increase the labor supply in this field of artificial intelligence.

A recently published article on Analytics Insight outlines five career paths in the field of Artificial Intelligence that are experiencing rising demand. (ARTIFICIAL INTELLIGENCE JOBS LATEST NEWS;

Priya Dialani; June 20, 2020) <https://www.analyticsinsight.net/top-5-ai-career-paths-time/>

*“The rising demand for Artificial Intelligence has given rise to more diverse AI career paths. Artificial intelligence (AI) has come to define society today in manners we never envisioned. Artificial intelligence makes it workable for us to open our cell phones with our faces, ask our virtual assistant’s questions and get vocalized answers, and have our undesirable emails sifted to a spam folder while never addressing them.*

*The effect of AI and machine learning doesn’t stop at the capability to make the lives of people simpler, however. These programs have been created to decidedly affect pretty much every industry through the streamlining of business procedures, the improving of customer experience, and the completion of tasks that have never been conceivable.*

*As per the job site Indeed, the demand for AI aptitudes has dramatically increased in recent years and the number of job postings is up by 119%. However, job-seeker interest in AI careers appears to have leveled off. This recommends businesses are going to battle to fill these positions for a long time.*

#### **Data Scientist**

*A data scientist is liable for gathering data and analyzing it. Data scientists have foundations in cutting edge math and statistics, advanced analytics, and machine learning and AI. In an organization, data scientists extract helpful data from an ocean of information. In analyzing the information, they make inferences and accumulate insights and use them to support the business.*

*In recent years, the requirement for data scientists has increased by 35%. This unexpected increment in the demand of data scientists has prompted the talent crunch that we’re seeing across numerous companies and enterprises. Shockingly, however, the needs are clear (i.e., a computer science degree, good experience in coding), the job of a data scientist is approximately characterized across the job market and sets of responsibilities can change broadly. Those keen on turning into a data scientist at any association will require experience and backgrounds in statistics, probability, mathematics, and algorithms as a base level of qualifications.*

### ***Machine Learning Engineer***

*They're generally responsible for building and managing platforms for machine learning projects. The job of a machine learning engineer is at the core of AI projects and is appropriate for the individuals who hail from a foundation in applied research and data science. Notwithstanding, it's additionally important to be an AI software engineer and show an intensive comprehension of different programming languages.*

*Machine learning engineers ought to likewise be able to apply predictive models and leverage natural language processing when working with colossal datasets. To get recruited, it will help if candidates are profoundly knowledgeable about agile development practices and acquainted with leading software development IDE tools like Eclipse and IntelliJ.*

*If you examine leading workplaces, you'll see that many hiring organizations incline toward people who have a master's or doctoral degree in computer science or mathematics. Preference is frequently given to technology experts with solid mathematical abilities. Most job postings additionally expect applicants to be specialists in artificial intelligence, deep learning, and neural networks, with solid computer programming skills, analytical skills, and experience with cloud applications.*

### ***AI Architect***

*The job of an AI architect is different from that of the machine learning engineer and data scientist, and companies hope to enlist AI architects notwithstanding these different jobs. Artificial intelligence architects are answerable for the overall needs of artificial intelligence projects. This job is answerable for making and keeping up architecture utilizing leading AI technology frameworks. This job has parts of data science, solutions specialist, and technology expert all wrapped into one position.*

*Artificial intelligence architects need to take a look at the 10,000-foot view of an AI deployment project to comprehend overall mission objectives, realize the various ways to deal with applying AI to those objectives and organize teams to achieve those objectives. They additionally need to perceive how the AI is utilized in a company that requires a profound comprehension of the different AI patterns, capabilities of AI platforms, and the state of data in the company. On account of these prerequisites, an AI architect isn't an entry-level position, but instead one that requires long years of involvement in the field.*

### ***Business Intelligence Developer***

*Professions in artificial intelligence likewise incorporate the position of business intelligence (BI) developer. The essential objective of this job is to analyze complex data sets to recognize business and market patterns. Business intelligence developers are normally responsible for structuring, modeling, and keeping up complex data in highly accessible cloud-based data platforms.*

*The individuals who are keen on this job need to have solid technical and analytical abilities. Applicants ought to be able to speak with non-technical partners and show strong critical thinking aptitudes.*

*Not at all like other artificial intelligence careers on this rundown, business intelligence developers customarily just have been required to have a bachelor's degree education in engineering, computer science, or a related field. However, a blend of hands-on understanding and certifications is exceptionally wanted. This implies the perfect applicant will have extensive involvement in data warehouse design, data mining, SQL queries, SQL Server Integration Services, SQL Server Reporting Services, and BI technologies.*

**Big Data Engineer**

*As big data engineers and architects play a crucial job in building up an environment that empowers business frameworks to speak with one another and examine information, most organizations incline toward experts who have finished a Ph.D. in mathematics, computer science, or a related field.*

*Unlike data scientists, this job can feel increasingly involved, big data engineers regularly are entrusted with designing, planning, and building up the big data environment on Hadoop and Spark systems. Applicants additionally need to exhibit significant programming experience with C++, Java, Python, and Scala. They likewise need to have in-depth information and experience taking part in data mining, data visualization, and data migration."*

4. Does the potential award supplement but not supplant existing funding sources? If yes, describe how the potential award supplements existing funding sources.

☒ Yes ☐ No

Triumph funding will be used to develop a new program in Okaloosa County Schools for Artificial Intelligence. Traditional funding sources such as FEFP and CAPE will be used to sustain this program as it does with other CTE programs.

5. Please provide a Project/Program Budget. Include all applicable costs and other funding sources available to support the proposal.

A. Project/Program Costs: See Attachment B

Example Costs (Note: Not exhaustive list of possible Cost categories.)

Construction	\$ _____
Reconstruction	\$ _____
Design & Engineering	\$ _____
Land Acquisition	\$ _____
Land Improvement	\$ _____
Equipment	\$ _____
Supplies	\$ _____
Salaries	\$ _____
Other (specify)	\$ _____
Total Project Costs:	\$ <u>5,700,000</u>

- B. Other Project Funding Sources:  
Example Funding Sources (Note: Sources.) Not  
an exhaustive list of possible Funding

City/County \$ \_\_\_\_\_



Private Sources	\$ _____
Other (e.g., grants, etc.)	\$ 2,860,000
Total Other Funding	\$ _____
<b>Total Amount Requested:</b>	<b>\$ 2,840,000</b>

Note: The total amount requested must equal the difference between the costs in 3A. and the other project funding sources in 3.B.

**C. Provide a detailed budget narrative, including the timing and steps necessary to obtain the funding and any other pertinent budget-related information.**

Triumph funding is requested in two formats.

First, OCSD requests initial funding in Year 1 in the amount of \$750,000 to fund startup costs associated with the AI Learning Institutes to include the cost of a recruiter/UF liaison and 3 instructors who will spend the first year in program development. The balance of the Year 1 funding will be used to purchase equipment and computers for elementary, middle and high school classrooms to support AI curriculum.

Second, OCSD requests performance funding for each industry certification earned in the AI Learning Institutes program through Year 6 in the amount of \$1,900 per certification.

Attachment C provides detail.

**Applicant understands that the Triumph Gulf Coast, Inc. statute requires that the award contract must include provisions requiring a performance report on the contracted activities, must account for the proper use of funds provided under the contract, and must include provisions for recovery of awards in the event the award was based upon fraudulent information or the awardee is not meeting the performance requirements of the award.**

☒ Yes      ☐ No

**Applicant understands that awardees must regularly report to Triumph Gulf Coast, Inc. the expenditure of funds and the status of the project or program on a schedule determined by Triumph Gulf Coast, Inc.**

☒ Yes      ☐ No

**Applicant acknowledges that Applicant and any co-Applicants will make books and records and other financial data available to Triumph Gulf Coast, Inc. as necessary to measure and confirm performance metrics and deliverables.**

☒ Yes      ☐ No

**Applicant acknowledges that Triumph Gulf Coast, Inc. reserves the right to request additional information from Applicant concerning the proposed project or program.**

☒ Yes      ☐ No

## **ADDENDUM FOR WORKFORCE TRAINING PROPOSALS**

### **1. Program Requirements**

- A. Will this proposal support programs that prepare students for future occupations and careers at K-20 institutions that have campuses in the disproportionately affected counties? If yes, please identify where the campuses are located and provide details on how the proposed programs will prepare students for future occupations and at which K-20 institutions that programs will be provided.**

☒ Yes      ☐ No

Campus locations are yet to be determined. The Artificial Intelligence Learning Institutes will provide students with opportunities to earn Digital Tools and CAPE certifications that are aligned to needs articulated by industry.

- B. Will the proposed program (check all that apply):**

- ☒ Increase students' technology skills and knowledge
- ☒ Encourage industry certifications
- ☒ Provide rigorous, alternative pathways for students to meet high school graduation requirements
- ☒ Strengthen career readiness initiatives
- ☒ Fund high-demand programs of emphasis at the bachelor's and master's level designated by the Board of Governors
- ☒ Encourage students with interest or aptitude for science, technology, engineering, mathematics, and medical disciplines to pursue postsecondary education at a state university or a Florida College System institution within the disproportionately affected counties (similar to or the same as talent retention programs created by the Chancellor of the State University System and the Commission on Education)

- C. Will this proposal provide participants in the disproportionately affected counties with transferable, sustainable workforce skills but not confined to a single employer? If yes, please provide details.**

☒ Yes      ☐ No

- D. Identify the disproportionately affected counties where the proposed programs will operate or provide participants with workforce skills.**

Okaloosa County

- E. Provide a detailed description of, and quantitative evidence demonstrating how the proposed project or program will promote:**
- **Economic recovery,**
  - **Economic Diversification,**
  - **Enhancement of the disproportionately affected counties,**
  - **Enhancement of a Targeted Industry.**

OCSD's emphasis on Artificial Intelligence curriculum in the coming years will result in students leaving K-12 with opportunities to further their studies toward careers as Data Scientists, Machine Learning Engineers, AI Architects, Big Data Engineers, and Business Intelligence Developers, among others. Students leaving high school with recognized industry certifications have greater opportunities for college and career advancement.

## **2. Additional Information**

- A. Is this an expansion of an existing training program? Is yes, describe how the proposed program will enhance or improve the existing program and how the proposal program will supplements but not supplant existing funding sources.**

☐ Yes ☒ No

- B. Indicate how the training will be delivered (e.g., classroom-based, computer based, other).**

Training delivered will be classroom/lab-based at selected schools in Okaloosa County and at any other locations with which OCSD enters into an agreement for space or services.

- C. Identify the number of anticipated enrolled students and completers.**

1500 students are expected to take part in the program once it is established. The program expects to generate 1100 certifications within six years of grant approval.

- D. Indicate the length of the program (e.g., quarters, semesters, weeks, months, etc.) including anticipated beginning and ending dates.**

Courses at each grade level will be yearlong or one-semester as determined through the curriculum development process. Courses are expected to begin in the 2022-2023 school year.

**E. Describe the plan to support the sustainability of the proposed program.**

Career Technical programs such as AI Learning Institutes are sustainable through FEFP, CAPE Certification funding, and Carl Perkins Grant funding.

**F. Identify any certifications, degrees, etc. that will result from the completion of the program.**

Certifications will be selected from the CAPE Funding List as appropriate. Planned certifications include:

USINS001 Small UAS (sUAS) Safety Certification: Level 1; USINS002 Visual Line of Sight System Operator (VSO) Ground; ADESK011 Autodesk Certified User – Inventor; MICRO112 Microsoft Technology Associate (MTA) - Introduction to Programming Using Python; CERTI803 IC3 - Computing Fundamentals Digital Tools; CERTI802 IC3 Spark

New Certifications will be developed and recommended for funding.

**G. Does this project have a local match amount? If yes, please describe the entity providing the match and the amount.**

☒

Yes

☐

No

OCSD will provide a match in the amount of \$2,860,000

I, the undersigned, do hereby certify that I have express authority to sign this proposal on my behalf or on behalf of the above-described entity, organization, or governmental entity:

Name of Applicant: The School Board of Okaloosa County, Florida

Name and Title of Authorized Representative: 

Marcus D. Chambers  
Superintendent

Date 4/8/21

Name and Title of Authorized Representative \_\_\_\_\_

Timothy Bryant  
School Board Chairman

Date \_\_\_\_\_

ATTACHMENT C  
Okaloosa County School District  
Artificial Intelligence Learning Institutes  
Proposed Budget Updated 4-14-21

Description	2021-2022	2022-2023	2023-2024	2024-2025	2025-2026	2026-2027	TOTAL
<b>USES OF FUNDS</b>							
Contracted Services - University of Florida to develop comprehensive curriculum and teacher training model for elementary, middle and high school (over several years)	\$ 250,000	-	-	-	-	-	\$ 250,000
AI Innovation Labs - 3 schools/year	750,000	750,000	630,000	250,000	250,000	250,000	2,880,000
Equipment/Computers	200,000	200,000	100,000	100,000	200,000	200,000	1,000,000
Recruiter	92,500	92,500					185,000
Liaison w/UF for program startup	92,500	92,500			-	-	185,000
Industry Certification Prep and Exams	-	25,000	25,000	25,000	25,000	25,000	125,000
Teachers - Planning Year (3 positions)	231,000	-	-	-	-	-	231,000
Teacher Training	50,000	50,000	50,000	25,000	20,000	20,000	215,000
AI Summer Institutes	50,000	75,000	50,000	75,000	75,000	75,000	400,000
<b>TOTAL USES OF FUNDS</b>	<b>\$ 1,716,000</b>	<b>\$ 1,285,000</b>	<b>\$ 855,000</b>	<b>\$ 475,000</b>	<b>\$ 570,000</b>	<b>\$ 570,000</b>	<b>\$ 5,471,000</b>
<b>SOURCES OF FUNDS</b>							
Requested Triumph Funding	\$ 416,000	\$ 285,000	\$ 380,000	\$ 475,000	\$ 570,000	\$ 570,000	\$ 2,696,000
District Funding	1,300,000	1,000,000	475,000	-			2,775,000
<b>TOTAL SOURCES OF FUNDS</b>	<b>\$ 1,716,000</b>	<b>\$ 1,285,000</b>	<b>\$ 855,000</b>	<b>\$ 475,000</b>	<b>\$ 570,000</b>	<b>\$ 570,000</b>	<b>\$ 5,471,000</b>



**DEPARTMENT OF THE AIR FORCE  
HEADQUARTERS 96TH TEST WING (AFMC)  
EGLIN AIR FORCE BASE FLORIDA**

7 April 2021

MEMORANDUM FOR Triumph Gulf Coast Proposal Review Committee

FROM: 96 TW/CT

SUBJECT: Endorsement of Okaloosa County School District Artificial Intelligence Certification Program

1. This memorandum reaffirms the long-standing and highly valued partnership between Eglin Air Force Base and the Okaloosa County School District regarding our joint endeavors in developing, enhancing and supporting Science, Technology, Engineering, and Mathematics (STEM) programs throughout the community. Our continued partnership has proven to be a very powerful force multiplier in preparing a local, energetic and well qualified workforce for the increasingly STEM rich employment opportunities at Eglin Air Force Base.
2. Each located at Eglin Air Force Base, the 96<sup>th</sup> Test Wing, the Air Force Research Laboratory Munitions Directorate and the Air Force Life Cycle Management Center Armament Directorate are seeing huge growth in the research and development, testing and fielding of advanced systems employing autonomy, machine learning and artificial intelligence. Collectively we are in the early stages of fully understanding the implications of testing autonomous systems employing artificial intelligence as they relate to test design, range fencing, risk mitigation, and testing ethical “governors” at the boundary conditions where much machine learning actually occurs and artificial intelligence heuristics engage.
3. An Artificial Intelligence Certification Program in the Okaloosa School District would be a welcomed addition to our current STEM outreach program. Furthermore, it would lead to an immeasurable return on investment as a certain percentage of the graduates of such a program would undoubtedly pursue post-secondary education STEM opportunities and someday possibly join the local Team Eglin workforce. A win-win for all!

A handwritten signature in black ink, reading "Michael R. Contratto".

MICHAEL R. CONTRATTO, NH-04  
Acting Technical Director, 96<sup>th</sup> Test Wing



**Herbert Wertheim College of Engineering**  
Department of Materials Science & Engineering  
Nuclear Engineering Program

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March 28, 2021

Dear Triumph Gulf Coast Foundation:

I am writing to you in support of the grant proposal put forward to your foundation by the Okaloosa County School District entitled, "Okaloosa County Artificial Intelligence (AI) Certification Program". This program aligns with the five-million-dollar Department of Education grant that I am Principal Investigator on (EQuIPD) which serves 250 teachers in ten Florida school districts. We are a teacher professional development grant which uses coaching and sustained trainings to help teachers use system thinking, computational thinking and technology (sensors and probeware) to build core concept models in students through engaging collaborative hands-on activities and inquiry experiences. Our training methods saw significant changes to teacher practice after only one year of implementation and our grant is now applying for companion grants in order to expand into northwest Florida. These companion grants include a six-million-dollar Department of Defense grant to expand EQuIPD to areas in Florida and Mississippi with significant military base presence, and a Department of Education two year award to continue the work of EQuIPD in Florida.

We would be thrilled to work with Okaloosa County on this grant and can provide the curriculum development, coaching and professional development support needed for successful implementation of this program. We have held over 1000 hours of professional development over the past two years and are able to support teachers in both face-to-face training sessions as well as virtual sessions. We have coaches who are experts in reading, mathematics, computing, engineering, and science who are able to work with Okaloosa teachers not only to prepare them to offer this certification, but also to utilize them as local experts to develop a curriculum that is uniquely situated to the workforce needs of Okaloosa County.

We hope the alliance between the University of Florida, Okaloosa County Schools and Gulf Triumph Foundation is ongoing and sustained and we believe that by working together, we can address the achievement gap within the district and prepare students for well-paid careers in the developing AI and ML workspace in the northwest Florida region.

Sincerely,

Nancy Ruzyski  
Senior Lecturer  
Herbert Wertheim College of Engineering  
Department of Materials Science and Engineering  
100 Rhines Hall, PO BOX 116400, Gainesville, FL 32611  
[nruzycki@mse.ufl.edu](mailto:nruzycki@mse.ufl.edu)  
[equipd.mse.ufl.edu](http://equipd.mse.ufl.edu)  
[An Equal Opportunity Institution](#)

A handwritten signature in black ink, appearing to read 'N. Ruzyski', written over a white background.