

EQUIPD Grant AI projects

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Grants/Research Contracts/Foundation Funding:

2018-2021 Five Million Dollar United States Department of Education SEED grant for Teacher Professional Development. This grant established and validated the EQUIPD grant professional development model (PD). The grant built K-9 teacher effectiveness through pedagogical practices for system thinking, process mapping, Modeling Instruction Conceptual Development cycles, student centered inquiry, questioning strategies and use of technology and computation in the classroom. This grant was one of the few that met the What Works Clearing House statistical metrics for change to teacher practices. This grant ran in 10 Florida School districts. This included use of simulations, sensor and probeware and computational methods.

2022-23 ~\$500,000 State of Florida Cybersecurity Grant for teacher professional development in Artificial Intelligence and Computational thinking. This grant served over 300 teachers in 22 Florida school districts to upskill teachers for teaching foundational concepts in Artificial Intelligence related to the new State AI Frameworks released in fall 2022. This include 40 hour bootcamps for AI foundational Knowledge, 80 hours in follow-up PD (in person and virtual), and one on one coaching of teachers. This grant started in 2022 with 3 districts, 3 teachers and 3 schools and in year 2 had prepared and supported 15 districts, 22 teachers and 22 schools The grant also supported teachers in earning industry credentials for Azure platform tools. The grant has worked to create lessons tying AI to Florida workforce examples in agriculture, energy, coastal resilience, ecology, engineering, cyber and ethics. Courses available in Canvas Commons under a Share-Alike non commercial license.

2022-2024 ~\$900,000 Okaloosa School District – Triumph Gulf Foundation Grant – This grant provides services to the district to create and implement Data Science State Frameworks for middle and high school, develop and pilot curriculum for the courses and provide teacher professional development and coaching. Currently the state has adopted the Data Science frameworks, course are being taught by 11 teachers in 7 schools and the first two years of the curriculum has been developed. Courses available in Canvas Commons under a Share-Alike non commercial license.

2023-24 \$60,000 – Southern Regional Educational Board/State of South Carolina. Provide services to SREB and South Carolina teachers for professional development of teachers for the South Carolina AI Frameworks. Support teachers in developing lessons aligned with the frameworks, provide coaching services to support teachers.

2021-2024 ~\$58,000 -Duke Energy. Develop and implement an AI contest for High school and Middle School students focused on critical energy issues. Host one contest per year for each age group. Year 1, 2 was focused on Orange County Public Schools. Year 3 expanded to North Central Florida. Over 150 students served.

2022 ~\$20,000 – Orange County Public Schools- Develop and implement a month long AI summer class for students focused on experiential learning.

2022-Current ~\$400,000 Arnie Goldberg Foundation. Design, create and implement summer camp for URM middle school students in Florida focused on engineering design thinking and computational thinking. In 2022 , 8 camps in 6 counties were run. In 2023, 24 camps in 8 districts were run. This also included .\$24,000 in funding from Deffebach Foundation for camps in Brevard County. Over 500 students served. The grant also runs virtual and remote After-School programs for URM middle school students in 5 Florida school districts with 4-5 sessions per week. Focus on programming and machine learning using Micro:bit and Arduinos.

2023 AI Institute- Faculty Development of State College Instructors – worked with AI Institute for week long professional development of college faculty from College of Arts and Letters.

Non-Funded work

2020-Current – Summer Technology Training for teacher- The grant provides virtual weekly sessions (up to 4 per week) in use of technology (sensor and probeware), content (AI and Cyber), software (simulations and analysis software) and programming (python) to teachers in the southeast. Over 500 teachers have been served through these trainings and webinars.

2018-current – Faculty Development – have worked with HCBUs to provide technology and pedagogical Professional development and computational programming in the STEM fields. Jackson State College, Mississippi. Also provide faculty development and professional development to faculty at Miami Dade College.

2020 – Teacher Professional Development – Designed, developed and implemented a Virtual Professional Development 100 hour summer program for 30 teachers in Mississippi as a project with Jackson State University.

2023—Gear Up Miami – designed created and implemented a 10 week remote/virtual summer course for 45 URM students for Artificial Intelligence and Python Jupyter notebook programming.

2023-Current – continue to develop and refine curriculum for the Artificial Intelligence courses.

2023-Current –SECME – South Eastern Conference on Minorities in Engineering. SECME serves students grades 5-12 in the Southeastern United States. This program creates programming and contests for URM students in engineering. UF folded this program into K12 programs in COE. Created an Artificial Intelligence contest for the Summer 2023 national contest for middle and high school students. Secured 50K in funding to run the contest and modernize the contest for students. Continue to work with SECME to modernize program and create supporting infrastructure.