ETHAN DEAN

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PROFESSIONAL SUMMARY

I am an advancing C++ systems developer and have built desktop and web applications at the enterprise level. My experience building robust, containerized software applies widely and I have joined financial systems research at UCF utilizing machine learning. My goal is to constantly find new challenges to expand my knowledge.

EXPERIENCE

Student Researcher   July 2024 – Present
Future Data Lab @ UCF   *Orlando, FL*
- Extract sub-graphs of transaction data from the blockchain through RPC APIs with python
- Analyzing transformation of graphs over time to identify emerging patterns

Software Engineer Intern   May 2024 – Present
Lockheed Martin   *Orlando, FL*
- IRAD Advanced Algorithms
- Optimization of **C++** application decreasing iteration runtime by **80%**
- Coordinated and led **2 week** procedure for **certification** of software tools

Software Engineer CWEP   Jun 2023 – May 2024
Lockheed Martin   *Orlando, FL*
- Designed and integrated **6** different built-in tests in **C** for embedded flight code on Apache aircraft
- Implemented **5** high-priority features for **C++** GUI application used for simulating aircraft functionality
- Consolidated **9** features from an unsupported app to a **C#** GUI app, streamlining production workflow
- Created app with **7** custom defined UART messages on a **python** GUI application to poll hardware

Data Acquisition Team   Aug 2022 – May 2023
University of Central Florida   *Orlando, FL*
- Worked as a small team to create **60hz** onboard telemetry communication on a Rasp. Pi for a racing vehicle
- Developed the **python** script to read and process **4** streams of telemetry data from the vehicle

PROJECTS

Cruise Connect | *Javascript, React, Node, Express, MySQL, Docker, AWS, Clerk*   2024
- Developed personal project social media web app to help people meet before their cruise departs
- Engineered Docker-based containerization of the application, enabling seamless AWS deployment and cutting development cycle time by 50%, while enhancing scalability and reliability of the system
- Integrated Clerk API for user authentication, utilizing OAuth to streamline secure login processes
- Use MySQL database to store user and cruise data for comparing user interests

Embedded System Testbench | *Python, PyQt, PySerial*   2023
- Design and deployment of cross-platform app that polls boards with UART commands using PySerial
- Implemented multi-threading for performance optimization by managing write/read threads being queued for the port adding responsiveness to the app

EDUCATION

University of Central Florida   Aug 2022 – May 2026
Bachelor of Science in Computer Science, Minor in FinTech   *Orlando, FL*
- GPA: 3.987; SAT 1500/1600; ACT 34/36; Dean's List 2022-2024
- National Merit Scholar and UCF Burnett Honors Scholar
- CS Courses: Data Structures and Algorithms, Computer Arch., Enterprise Computing, Mobile SW
- Math Courses: Calculus I, II, & III, Differential Equations, Matrices and Linear Algebra
- Other Courses: Corporate Finance, Financial Derivatives, Foundations in Financial Tech

TECHNICAL SKILLS

Languages: HTML | CSS | JavaScript | SQL | VBA | Shell | C | C++ | Python | C# | Java | JavaScript | MatLab
Frameworks/Libraries: React | Node | Express | Next | Vite | MySQL | Tailwind | Three.js | C++ MFC | Qt | PyQt
Tools: Git | Jira | VS Code | Visual Studio Pro | Eclipse | Unix/Linux | Docker | VxWorks