Matthew Thomas

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Education

University of Central Florida May 2026
B.S. in Computer Science 3.8/4.0 GPA *Orlando, Florida*
Relevant Coursework: *Data Structures and Algorithms, Object Oriented Programming, Discrete Mathematical Structures, Computer Logic, Enterprise Computing*

Technical Skills

Languages: Python, Java, TypeScript, JavaScript, C, C++, C#, SQL, Haskell, HTML, CSS
Frameworks: React, Node.js, Next.js, TailwindCSS, Springboot
Tools: Git, Linux, AWS, Postman, PostgreSQL, RESTful API, MongoDB

Work Experience

Lead Teaching Assistant - Advanced Data Structures in C August 2023 - Present
University of Central Florida *Orlando, Florida*

- Assisted in preparing and delivering lectures on data structures and C programming to up to 300 students at a time
- Conducted review sessions and provided in-depth explanations of complex concepts, which improved student exam scores by 7% on average
- Provided mentorship to over 1000 students and debugging assistance on student projects
- Designed assignments and evaluated student performance with constructive feedback

Lead Learning Assistant - Intro to Programming in C August 2023 - Present
University of Central Florida *Orlando, Florida*

- Led discussions and facilitated interactive learning sessions
- Provided individualized support through office hours, debugging, and programming guidance, raising assignment averages by 14% and exam averages by 4%
- Assisted in developing instructional materials, assignments, and quizzes
- Created practice exercises and coding projects to reinforce C programming concepts

Projects

Black Scholes Visualizer | *Git, Github, TypeScript, Next.js, TailwindCSS, Vercel*

- Developed a full stack app that allows users to calculate option prices based on the Black Scholes formula
- Implemented heatmap illustration to allow users to visualize the changes in option prices with a varying volatility
- Adapted endpoints to optimize heatmap visualization by 25%
- Utilized client-side caching to improve performance by 13%

GameWardenAI | *Git, Github, Next.js, Typescript, TailwindCSS, Fishial.ai, SQL*

- Utilized AI to match a user's image to a species, then displayed the FWC rules and regulations for that species
- Optimized image processing API endpoint to improve speed by 23%
- Designed landing page to take user input and an index page to view all identified fish in the FWC regulations
- Utilized Fishial.ai to parse images and match pixels across a 2 million image database to identify species

WebApp-SuppliersPartsJobs | *Java, JSP, Serverlets, MySQL, Tomcat*

- Developed a Java-based web app with JSP, Servlets, and MySQL
- Implemented user authentication and role-based access (root, client, accountant)
- Enabled dynamic SQL execution and business logic enforcement for supplier updates
- Deployed on Tomcat, ensuring secure JDBC connections and stored procedure execution