

James Kyle Blackmon

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EDUCATION

University of Florida College of Engineering
Bachelor of Science in Computer Engineering

Gainesville, FL
June 2018 - April 2024

EXPERIENCE

Fleet Application

Remote

Assistant React Developer

February 2022 – August 2022

- Collaborated remotely using modern tools such as Figma, GitHub and React to develop a social media platform for meeting new friend groups.
- Primarily worked on UI/UX ideation and development for several screens within the application's screen stack using React framework for JavaScript.

UF Faculty Research

Gainesville, FL

Lead Alexa Researcher

January 2023 – August 2023

- Worked under UF faculty researching the vulnerabilities that exist with smart speaker devices that include microphone arrays, such as Amazon Alexa.
- Primarily focused on researching the threat vectors associated with smart speakers and how they might be exploited to gain insight on the microphone's environment.
- Learned and interacted with Amazon tools such as IAM and CloudFormation to assist in developing malicious Alexa Skills hosted on Lambda.

PROJECTS

Custom Memory Manager

1 Month

Wrote a custom memory management library for Linux in C++ and debugged using Valgrind to identify and eradicate 100% of memory leaks and fragmentation. Used CMake Makefiles to speed up development and execution of the testing framework.

MIPS Processor

4 Months

Designed, developed, and debugged a working 32-bit MIPS processor using a finite state machine and data path in VHDL. Also used ModelSim to perform functional and timing simulations for each component of the processor such as the ALU and memory module.

SwoleGator Velocity-Based Training Application

Primary React-Native developer for the team. Focused on UI/UX as well as interfacing with our hardware peripheral. Further, optimized the Google Firestore NoSQL database to integrate user authentication within our app and store real-time user data for each workout.

TECHNICAL SKILLS

Software/Hardware Design: C/C++, ARM, Python, VHDL, React.JS, React-Native

AWS: CloudFormation, IAM, Lambda, Alexa Skills

Project Management: AGILE methodology, Git, Jira, Figma