Gabriel Blackwell

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Education

University of South Carolina Columbia, SC
Bachelor of Science in Computer Engineering *Aug. 2021 – Dec. 2024, Major GPA: 3.9*
Awards: McNair Junior Fellow, Magellan Scholar, Presidents List, Deans List, LIFE Scholar

Experience

Software Engineering Intern May 2024 – August 2024
Duck Creek Technologies *Remote SC*
- Developed API in accordance to RESTful design principles in C#
- Added metrics to existing codebase using OTel, developed Grafana dashboard for visualization
- Fixed existing bugs, led other interns in developing new features in T-SQL and C#

Lab Manager June 2022 – Present
University of South Carolina *Columbia, SC*
- Conducted more than 30 usability tests as a quantitative moderator and observer
- Implemented UI/UX designs based on feedback from users
- Led team meetings and discussions on 4 ongoing research projects
- Coordinated scheduling of researchers for several lab spaces
- Operating as lead software engineer on 2 projects and design/develop on 3 others

Full-Stack Software Engineer Intern April 2023 – Present
Statewide Charitable Organization *South Carolina*
- Created a fully market ready cross platform application in React Native with 3 other developers
- Designed a custom map using Google Maps API to allow users to view health resources in their area
- Designed and conceptualized modern UI/UX designs from the ground up
- Integrated team sprint methodologies into weekly workflow
- Debugged through multiple rounds of release candidates and helped develop user authentication
- Met and reviewed design and project structure with stakeholders in cross-discipline teams in law, marketing, health, and management

Projects

VR Robotics Movement System | *McNair Fellows Grant* | *Magellan Scholar Grant* June 2022 – Present
C#, Node.JS, Python, ROS1, Unity, Firebase, OpenXR, Bash, Git
- Used Unity to develop a VR space and a movable 3D robotic surrogate via natural hand gestures
- Custom developed a full stack to facilitate data transfer to and from Unity and physical robotic arm
- Developed a Node middleware to carry data between Unity and ROS1 on a single end machine
- Developed a ROS1 package to interface with a robotic API to facilitate live movement and status transfer

MSNTASK | *React.JS, HTML/CSS, Python, Firebase, Google Cloud, Git* August 2022 – December 2023
- Developed and maintained a multi-university project studying user behaviors when interacting with security prompts
- Created back-end data structures for user authentication and fast data querying methods
- Used BigQuery, Google Cloud, and Python to clean data for 700+ users
- Developed with React and Material-UI to constantly improve UI/UX, maintain an active version control, and documentation

8-Bit CPU | *SystemVerilog, Intel Quartus, Git* August 2023 – December 2023
- Developed a 3-staged pipelined CPU from scratch on an FPGA Board
- Based upon RISC-V instruction set, was able to run and execute all common ASM instructions

Technical Skills

Languages (ordered in familiarity): C#, JavaScript, Java, C/C++, HTML/CSS, SQL, Python, R
Frameworks: React.js, React Native, Expo, Node.js
Developer Tools: Git, Google Cloud Platform, VS Code, Visual Studio, Android Studio, Firebase, Eclipse, OpenXR
Low-Level: Ubuntu Linux, Bash/zsh, Robotic Operating System 1 (ROS), ASM, Logic Design