Garrett Whitehead

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EXPERIENCE

J.B. HUNT *Lowell, AR*
Application Development Intern *Mar 2019 – July 2021*

- Leveraged Angular to implement autofill features into the J.B. Hunt Carrier Automation Management website, streamlining the process of searching for builds by 55% and improving employee efficiency..
- Created many Unit and End-to-End tests for various J.B. Hunt applications. Covered on average 90% of code, resulting in exceptional reliability and greater uptime for production services.
- Pioneered a virtual reality Final Mile delivery experience using Unreal Engine 4, designed to streamline the training of J.B. Hunt carriers working as final mile delivery drivers. Resulted in a proof-of-concept demo which offered a safer virtual offloading training experience.
- Diagnosed over 40 issues and added features within the J.B. Hunt Drive app in React Native. Bug fixes and new features led to a 14% improvement in overall app speed, greater overall driver user experience.

EDUCATION

UNIVERSITY OF ARKANSAS *Fayetteville, AR*
Bachelor's Degree in Computer Science *Aug 2019 – Dec 2023*

- Relevant Coursework: Formal Languages and Computability, Software Engineering, Systems Synthesis, Algorithms, Database Management Systems, Embedded Systems

PROJECTS

GROCERY MANAGEMENT

- Developed a Swift app that uses Google Cloud Vision API's OCR technology to scan Walmart receipts and extract data on grocery items using a custom endpoint. The app also notifies users of perishable item expiration dates, revolutionizing the way users manage their grocery purchases.

COLLISION DETECTION

- Implemented an advanced crash detection system using an Arduino and accelerometer that utilized Python, Twilio API, and Firebase to instantly notify emergency services. Recognized with the first-place award at the 2019 University of Arkansas ACM Hackathon.

MOBILE OFFLINE STREAMING SYSTEM

- Created a system for localized video streaming in rural areas via a trailer. Utilized WebRTC streaming technology, NGINX, OBS, and routers to let 100+ users simultaneously watch with sub-1 second latency.

SIMULATED LASER TAG

- Developed a laser tag simulation that uses a Firebase database to manage player IDs and a Flask backend with an HTML/JavaScript frontend to simulate player traffic and display real-time scoreboard updates, complete with music and retro styling.

AWARDS

GOOGLE TECH CHALLENGE *Sept 2019*

- 1st place out of all University of Arkansas students.

UNIVERSITY OF ARKANSAS HACKATHON *Mar 2019*

- Awarded first place at the University of Arkansas ACM Hackathon (J.B. Hunt) for developing an innovative product that addressed real-world problems within a 24-hour timeframe.

JOHN BROWN UNIVERSITY PROGRAMMING COMPETITION *Feb 2019*

- Awarded second place at the John Brown University Programming Competition (JBU), demonstrating the ability to solve complex problems under time pressure, outperforming more than 10 competing teams.

ADDITIONAL

Languages: Java, C++, Python, JavaScript, TypeScript, HTML 5, CSS, SQL
Frameworks: Angular, Node.js, React Native, React, Next.js, Spring Boot
Tools/ Platforms: Azure, AWS, Docker, Kubernetes, Firebase, MongoDB, Postman