Kyle Hurd

Email: kmdude1000@gmail.com | Website: khurd21.github.io | GitHub: github.com/khurd21 | LinkedIn: linkedin.com/in/kyle-hurd

Education

Bachelor of Science, Computer Science | Fall 2022
Washington State University | *Pullman, WA* | *GPA:* 3.93

Associate of Arts, Music | Spring 2017
Grays Harbor Community College | *Aberdeen, WA* | *GPA:* 3.93

Technical Skills

Languages: C++, C#, Python, Javascript, Java, HTML, CSS
Frameworks and Tools: Qt, React, Spring, GTest, CMake
Tools: Git, GitHub Actions, Jira, Team City, DynamoDB, EC2, AWS Lambda, SQL
Operating Systems: MacOS, Linux, Windows

Professional Experience

Junior Software Engineer | Raleigh, NC
Applied Research Associates | May 2023 - Present
- Integrates joint targeteering on an Integrated Munitions Effect Assessment tool using **C++**, **CMake** and **Qt** on the **Windows** platform.
- Creates and communicates with **REST APIs** to stream geospatial data and targets from miscellaneous sources.
- Maintains an active **Secret clearance** and currently under investigation for **Top Secret//SCI** clearance.
- Integrates **OAuth2** with **KeyCloak** and **GeoAXiS** on desktop applications.
- Participates in the **AGILE** methodology as **Scrum Master**, leading sprint meetings, backlog refinements, retrospectives, and daily standups.
- Develops and maintains **unit tests** using **GTest** and **QTest**, ensuring software quality and reliability.

Software Engineer Intern | Seattle, WA
Amazon | May 2022 - August 2022
- Improved the performance and trust of **integration testing** for Alexa's Routine Recommendations Engine Service by mocking the external dependencies used by the system.
- Actively communicated project progress by following the **AGILE** methodology with sprint meetings, reflection meetings, and daily standups.
- Developed code on a **remote desktop**, utilizing **Amazon EC2 Linux** instances alongside **IntelliJ IDEA**.
- Communicated with **Amazon DynamoDB** tables as a storage tool for mocking results.

Software Engineer Intern | Pullman, WA
Schweitzer Engineering Laboratories | October 2021 - December 2021
- Performed **stress tests** on SEL Real-Time Automation Controllers (RTAC) for new firmware releases.
- Improved the setup and teardown procedures of tests by designing **automated scripts** to adjust input and output parameters to the device.

Projects

SkyBro: Weather Observations
Repository: https://github.com/khurd21/SkyBro
Alexa Skill Store: https://www.amazon.com/kmdude1000-SkyBro/
- An **Alexa Skill** providing weather observations tailored for skydivers and aviation enthusiasts.
- Reports cloud coverage, precipitation, and wind patterns based on the nearest **METAR weather station data** for USPA affiliated dropzones.
- Built with **C#**, **AWS Lambda** and the **Alexa Skill Set**.
- **CI/CD** pipeline using **GitHub Actions**, automatically performing **test coverage reports**, **unit tests**, and deployment to **AWS**.

Audible Altimeter
Repository: https://github.com/khurd21/Audible-Altimeter
- An **open source** speaking altimeter, acting as a tool for skydivers to maintain altitude awareness when skydiving.
- Supporting altitudes of 15,000 feet, the audible altimeter **reports a skydiver's altitude** in **1,000 foot intervals**.
- A **more affordable** option for skydivers, priced **six times lower** than comparable audible altimeters.
- Built with **C++**, **CMake**, and **GTest**.
- Utilized **I2C communication** with the **BMP390** sensor to accurately read temperature and pressure data for **real-time altitude calculations**.
- Utilized **I2S communication** to efficiently transmit altitude reports to a speaker, providing clear, **real-time auditory feedback** to the user.

iMessage Chat Bot
Repository: https://github.com/SilasStokes/pymessage_gpt_bot
- An open source **iMessage chatbot** that automatically generates and sends text replies using **ChatGPT's** large language model.
- Built with **Python**, **Qt**, and **ChatGPT**.
- **CI/CD** pipeline using **GitHub Actions**, automatically creates an **installer for MacOS devices**.