

Technical Skills

Programming Languages

Java, Python, GoLang, C, PHP, MIPS

Platforms

Windows, CentOS, Android, Arduino, Raspberry Pi, Nvidia Jetson, RoboRio

Tools

Microsoft Office, Adobe Photoshop, Git, Unity

Work History

Nebbiolo Technologies – Software Engineering Intern

Jun 2018 – Aug 2018

Designed and developed various features, including distributed computing, high availability data, and data visualization, while learning about corporation level programming workflows, networking topics, Unix, and proper design and architecture. By working in a professional environment, I also developed strong teamwork and communication skills.

Activities and Projects

Ocarina of Time Randomizer – Open Source Contributor

Aug 2018 – Present

I currently am actively contributing to Ocarina of Time Randomizer, an open source game hack played by thousands of people with active tournaments. I work with assembly (MIPS) and raw binary data, as well as C and python to modify the original game's behavior. My work is a direct application of what I have learned in my first semester at UIUC from ECE 120. My fork can be seen at <https://github.com/KevinPal/OoT-Randomizer>

CS Honors Project – UI Traffic

Aug 2018 – Dec 2018

Developed a mobile application using React Native to monitor and display crowded areas on campus.

ECE Honors Project – IOT Smart Hub

Aug 2018 – Dec 2018

Created an application that gathered data from sensors and could turn on and off devices based on sensor values, as well as display data on web portal. Developed using PHP, the TICK stack, and ESP32, and hardware logic.

FIRST Robotics – Programming Lead

Aug 2014 – May 2018

Lead a team of students to program an FRC robot with our efforts qualifying us for the world championships for the first time in 10 years. Learned concepts such as PID, vision processing, distributed computing, path planning, and motion profiling. I also learned how to delegate tasks and lead a team.

Achievements

API World 2017 – 1st place at the Dell Boomi Challenge, the largest API integration hackathon.

Integrate 2015 – 2nd place at the Net App Challenge at the largest API integration hackathon

AP Scholar with Distinction – Award given to students who scored high on 5 AP Exams

FIRST Engineering and Inspiration Award – Awarded to the robotics team that promotes engineering in their community and displays excellence in engineering.

Education

University of Illinois at Urbana-Champaign

(2018 - *Expected* May 2022)

Bachelor of Science, Computer Engineering

Current: ECE 220, ECE 110

Completed: ECE 120 HONORS, CS 196 HONORS, APCSA, APCSP