Liam Kelly

EDUCATION

Vanderbilt University, Electrical Engineering Major, Math Minor, 3.76 GPA   Aug 2015 - May 2019

WORK EXPERIENCE

Lyft, Software Engineer (Autonomous Vehicles Division), Palo Alto, CA   Aug 2019 - Present

Vanderbilt Aerospace Design Lab, Lead Software Engineer, Nashville, TN   Aug 2018 - May 2019

- Designed and implemented software including thread-safe and efficient logging, inter-processor and RF pub-sub communications, sensor fusion, and testing suite for the 2018-2019 VADL payload, collaborative UAVs
- UAVs autonomously navigated, used image processing and segmentation to determine ROIs, communicated ROI locations collaboratively, and experimented with machine learning model in place of IMU and GPS to localize.

Microsoft, Software Engineer Intern, Redmond, WA   May 2018 - Aug 2018

- Developed tool in visualize the dependency map used to deliver updates to the Azure Host OS
- Tool had GUI to visualize graphs and deployment strategies segmented by OS conditions and edit these graphs with checks for circular dependencies, facilitating greater understanding of the deployment of the CCU package
- Wrote programmatic interface for querying and editing the graph, increasing automation in the CCU pipeline
- Created ability to merge separate dependency schemas in order to generate new deployment strategies

Facebook, Software Engineer Intern, New York, NY   Jan 2018 - Mar 2018

- Developed random and per-user sampling and client aggregation APIs for the Android Instagram app
- Performed research and experiments to determine effects of sampling on the server and the client
- Resolved crashes and dogfooding loophole

Electric Imp, Software Engineer Intern, Los Altos, CA   Jun 2017 - Aug 2017

- Realized IoT projects as proof of concept designs for customer and internal requests
- Wrote device drivers for integrating the Imp with external devices such as GPS modules and SPI I2C cameras which were published as public-facing libraries used by Electric Imp developers
- Published example code for integrating the Imp with external services such as Google Calendar

SELECTED PROJECTS

- IntelliPill (**1st Place Winner of $10,000 at 2017 LinkedIn Bay Area Intern Hackathon**): IntelliPill is a smart pill rack targeted towards elderly individuals dependent on medication which helps them remember to take their correct medication. The rack is capable of detecting when medication is correctly taken, and it alerts caregivers of whether medication is correctly taken or not through an Android app.
- OneHealth (**2018 US National Finalist for Microsoft Imagine Cup**): OneHealth is a cryptographically secure medical records database built for storing, sharing, and analyzing medical records that is built on blockchain.

SKILLS, ACTIVITIES, & INTERESTS

- Computer Skills: C++, Python, Java, C, LaTeX
- Hackathons: 1st Place Overall at 2017 LinkedIn Bay Area Intern Hackathon, Best Data Visualization at 2018 Hack@CEWIT, Most Entrepreneurial Hack at 2018 Hack@CEWIT, 3rd Place Overall at 2018 MakeHarvard, Best Use of Silicon Labs Hardware at 2018 MakeCU, 2nd Place Overall at 2018 HackPrinceton, Best Use of Blockchain Technology at 2018 HackPrinceton, Most Innovative Technology Solution at 2018 HackPrinceton

RECOGNITION

- **Walter Criley Prize**: The Walter Criley Prize is awarded for the best paper written on an advanced senior project in electrical engineering at Vanderbilt University.
- **NASA 2018-2019 USLI, 1st Place**: Awarded to the first place finishing team in NASA's year-long national rocketry and payload experiment competition.