LENA VOYTEK
lcvoytek@gmail.com

EDUCATION

University of Arizona - GPA: 3.6 *August 2016 - May 2020*
Bachelor of Science, Electrical and Computer Engineering
Bachelor of Science, Computer Science
Minor, Mathematics

PROJECTS

Tracking and Training Handheld Dog Device *September 2020 - Present*
Garmin International - Tucson, AZ

- Elected software team lead of the project
- Implemented portions of OLED graphics library in C++
- Implemented training commands to collar over 27MHz radio

Implantable Medical Device Middleware Cybersecurity *December 2019 - Present*
University of Arizona - Tucson, AZ

- Middleware framework to control secure access to sensors and data
- Interacts with ARM TrustZone secure enclaves and user applications

UAV with Live Video Feed Controlled over a Cellular Network *August 2019 - May 2020*
General Dynamics Mission Systems + University of Arizona - Tucson, AZ

- Built a custom, 1m wide drone
- Used an ESP-32 microcontroller to control drone autonomously and send data to user over LTE
- Created Web-based dashboard for tracking encrypted location and live video feed

Scalable Microcontroller Ultra-Wideband Multilateralization *July 2019 - May 2020*
Jacobs Technology - Fort Huachuca, AZ

- Device for determining exact location in GPS-denied Environment
- Wrote asynchronous time of flight sensing and mesh firmware
- Interacted with Ultra-Wideband transceiver using SPI protocol

GPS + Audio Event Recorder *June 2019 - August 2019*
Jacobs Technology - Fort Huachuca, AZ

- Allows test engineers to mark down events with GPS and I2S Microphone
- Developed firmware in C for Cortex M4 Processor
- Developed PCB for compactly connecting all components

TECHNICAL SKILLS AND QUALIFICATIONS

Programming Languages	C, C++, Verilog, TypeScript, JavaScript, Python, Java, C#, LaTeX
Software	Visual Studio, VS Code, Vivado, MS Office, Fusion 360, Altium, Pspice
Operating Systems	Arch Linux, Debian (Ubuntu, etc.), Mac OS, Windows
Familiar Architectures	ARM, AVR, MIPS, RISC-V, x86

WORK EXPERIENCE

Garmin International - Tucson, AZ September 2020 - Present
Embedded Software Engineer

- Elected as software team lead for multiple handheld dog training and tracking products
- Developed firmware for GPS and RF dog devices using Garmin's RTOS
- Developed embedded C++ graphics library for OLED screens
- Created application for validating GPS accuracy on a device

Jacobs Technology - Fort Huachuca, AZ *May 2020 - September 2020*
Embedded, Electrical, and 3D Engineer

- Developed firmware for microcontroller projects
- Developed code for Xilinx Zync FPGA
- Used HAAS and Fryer milling machines for creating metal device cases
- 3D modeled and printed custom device cases

Jacobs Technology - Fort Huachuca, AZ *May 2018 - May 2020*
Firmware Engineer

- Created Firmware for various microcontroller projects focused on testing RF electronics
- Developed PCBs and determined hardware requirements for prototype devices

University of Arizona - Tucson, AZ *August 2017 - December 2017*
Undergraduate Learning Assistant - Tucson, AZ

- Assisted professor in teaching introduction to programming
- Worked with students on C programming concepts through labs and group activities

PROFESSIONAL

Institute of Electrical and Electronics Engineers (IEEE) *October 2018 - Present*
Student Vice President, Treasurer, Security Officer

Free Software Foundation *November 2020 - Present*
Contributing Member

Hardware and Computer Knowledge Society (H.A.C.K.S.) *October 2016 - May 2020*
Treasurer

Phi Sigma Rho - Alpha Kappa Chapter *February 2018 - May 2020*
Vice President of Philanthropy, Director of Professional Development