

Max Kross

MaxKross96@gmail.com | 12802 Locbury Circle, Apt J – Germantown, MD – 20874 | 240-527-1144
github.com/maxkross | linkedin.com/in/maxkross | maxkross.com

EDUCATION

Ohio State University Columbus, Ohio

B.S. Computer Science and Engineering (3.250 GPA)

September 2013 – May 2017

M.S. Computer Science and Engineering

September 2017 – December 2020 (Expected)

I'm an embedded software engineer with two years of semiconductor industry experience looking to expand on my experience in application development. I also have experience with coding in Python that I've leveraged to optimize my performance in previous embedded development roles.

WORK EXPERIENCE

Texas Instruments

Software Engineer – Germantown, MD

September 2019 – Present

- Doubled customer data transfer speeds by adding DMA transfer feature to SPI and UART protocol examples for AMIC110 and C200 EVMs.
- Expanded device starter application portfolio by porting a 4-wire touchscreen demo that leverages open source graphics library lvgl, GPIO, and an ADC Touchscreen Controller from an MSP432 to an AM335x on Beaglebone Black.
- Created Python scripts to automate formatting driver demos and documentation for placement on TI Resource Explorer.
- Added TI Resource Explorer offerings to optimize customer out-of-the-box experience. Modernized .pdf documentation by converting it into intuitive strapdown documentation offerings for Sitara processors.
- Moderated customer Q&A forums and maintained above an 85% 24 hour response rate. Answered customer questions about Sitara UART, I2C, and SPI drivers daily.
- Created customer-facing application for running Dhrystone benchmark on Cortex ARM R5F device.

Software Engineering Intern – Germantown, MD

May 2018 – August 2018

- Created Python scripts for TI's internal testing platform that flashed various hardware and tested the performance of software running on those platforms.
- Implemented a radar test setup that used Python to automate a rotating platform that held various radar boards so that their activation could be automated in nightly builds.

Software Engineering Intern – San Diego, CA

May 2017 – August 2017

- Designed and implemented an ECC SHA-256 security protocol for BLE OAD on TI's CC2640R2F board to a given specification. Created a Python tool that signed binary images, and added an embedded C solution to the board to verify on-chip and off-chip flash images.

Software Engineering Intern – Dallas, TX

May 2016 – August 2016

- Planned, designed, and implemented a C++ program to optimize the WEBENCH waveform generation process. This consisted of creating a parser for configuration files, interfacing with an API to read data, and creating multiple classes to store and manipulate data.

Ohio State University Engineering Education Innovation Center

Freshman Honors Graduate Teaching Associate – Columbus, OH

August 2014 – May 2019

- Taught students the core values of being an engineer, along with assessing their performance in the various roles of engineering.
- Collaborated with other TAs in order to conceptualize, design, and implement the Fundamentals of Engineering for Honors students robot course for the following semester.

PROJECT EXPERIENCE

Proteus Microcontroller

- Implemented I2C software libraries on a Freescale K60 processor that enabled data to be read from an accelerometer.
- Adapted SPI software libraries on other processors to work for a touchscreen library on a Freescale K60 processor.

QUALIFICATIONS

Computer Languages: C, C++, Python, Java, Matlab, HTML, CSS, UNIX

Relevant Coursework: Computer Architecture, Network Programming, Operating Systems, Parallel Computing, Data Structures and Algorithms, Systems Programming, Computability and Complexity