

Michael Rodi

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Education

Arizona State University- Barrett, the Honors College

Expected May 2022

Bachelor of Science in Engineering, Computer Systems Engineering

On Dean's List w/ **3.95 GPA**

Skills

Experienced with:

C++, Embedded C, Verilog, Java, Unix/Linux environments, Digital Logic Design, Computer Architecture, Probability, Statistics, Multithreading, Networking, Python, Data Structures & Algorithms, Circuits, and Assembly Language

Team & Work Experience

Android Firmware Engineering Intern - Peloton Interactive

Summer 2021

- Worked with the Peloton systems engineering team on developing an R&D project from its design documents to the point of being demoed to the team. Frequently met with mentors and got hands-on experience with Android Studio, socket programming libraries, JNI framework, and working with large-scale codebases.

Course Projects & Team Experience

10 Instruction-set 16-bit Microprocessor Design (Verilog)

Fall 2020

- Wrote a verilog hardware description of a 16-bit microprocessor design that can perform up to 10 different operations when given a set of instructions in binary. Created a testbench to verify the design.
- Synthesized and evaluated design in the Xilinx Vivado HLx design suite.

Embedded Microprocessor Systems - Accelerometer Balance Game

Spring 2021

- Developed an embedded system application in C for an angle-matching game on a FRDM-KL46Z board (ARM), using its I2C module to interface with an on-board accelerometer to calculate angles and light up LEDs on the fly.

Digital Design Capstone

Fall 2019

- Applied digital design fundamentals to design two finite-state synchronous machines, both in Moore and Mealy. Uploaded designs to an FPGA board and used Quartus to create schematics and timing diagrams to compare the two in order to determine which of the two designs would be more feasible.

Reader/Writer Semaphore Implementation

Fall 2020

- Demonstrated a solution for the "readers/writers" problem in C on a linux machine, so that multiple threads can interact with the same global variables without interfering with one another.
- Built upon work in earlier projects to implement threads, context switching, and semaphores in C.

Memory Glass Software Team

Fall 2019 - Spring 2021

- Joined a pre-existing, student-run engineering team at ASU with a goal to create a wearable that uses machine learning to recognize faces for Alzheimer's patients.
- Responsible for helping to set up an early prototype on a Raspberry Pi.

Awards

I.R.A. Fulton School of Engineering Dean's List

Fall 2018-2021

- Awarded for maintaining above a 3.5 GPA out of 4 for every semester that I have attended university so far.

Top 1% of High School Graduating Class of '18

Spring 2018

- Graduated in the top 1% of my high school class of 557 as a valedictorian.