Jacob Meyerson

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Education

Rochester Institute of Technology (RIT) Rochester, NY

Bachelor of Science in Computer Engineering *Aug. 2017 – May 2022*

Minor in Mathematics *Aug. 2017 – May 2022*

GPA: 3.98/4.00 Dean's List: Fall 2017, Spring 2018, Fall 2018, Spring 2019, Spring 2020, Spring 2021

Experience

Lockheed Martin June 2019 - Nov 2019, June 2020 - April 2021

Software Engineering Co-Op *Owego, NY*

- Part of the Diagnostic Software unit
- Worked on B2 Bomber Avionics and Graphics Processor (B2-AGP) automating builds and card setups, along with verifying card functionality
- Worked with Northern Arizona University (NAU) using Ternary Physically Unclonable Functions (PUF) for encryption and key authentication

STR June 2021 - August 2021

Sensors - Signal Processing & Algorithms Intern *Woburn, MA*

- Part of the Signal Processing & Algorithms department
- Worked on porting the PYNQ environment for ZYNQ architectures from a supported board to high powered signal processing ZYNQ board

Rochester Institute of Technology (RIT) Jan 2020 - May 2020

Digital System Design II Teaching Assistant *Rochester, NY*

- Worked in the lab helping students design a MIPS processor in VHDL
- Taught students the process of debugging errors in code and verifying waveforms
- Held office hours to individually work with students to improve their understanding of the design and code

Projects

Lockheed Martin B2 AGP | *C, Python, SVN, Raspberry Pi, Waterfall* June 2019 – Nov 2019

- Performed Software Verification (SV) and Design Verification Tests (DVT) to prove functionality, updating procedures as required
- Documented user guides for important processes required for testing
- Automated the build process for building Board Support Packages (BSPs) for each custom card
- Created setup macros to automate software configuration for new cards

Lockheed Martin TPUF | *C/C++, Python, Gitlab, Arduino, Agile* June 2020 – April 2021

- Worked with NAU to develop code to use Ternary Physically Unclonable Functions for secure key exchanges
- Restructured and reformatted code to create layers of abstraction and to make object oriented
- Developed using an Agile design framework
- Helped set up automated Software Factory to test and compile code anytime it's committed to Gitlab

Webcheckers | *Java, Spark, Git, HTML, Agile* Oct 2018 – Dec 2018

- Developed an online checkers game in a team of five using Java, Spark web micro framework, and HTML to meet demands of a customer-figure
- Developed using OpenUP methodology and Scrum process
- Created UML files, sequence diagrams, flow charts to support architecture choices

PYNQ Environment Porting | *Make, Git, ZYNQ architecture, Python* June 2021 – August 2021

- Worked to port the PYNQ environment from a supported board to a higher powered ZYNQ board
- Provided capability to execute high level algorithms (Python) on ZYNQ boards without manually writing VHDL/Verilog models

Technical Skills

Languages: C/C++, Java, Python ARM Assembly, MIPS Assembly, VHDL, LaTeX, Markdown
Developer Tools: Git, Gitlab, SVN, Cadence Virtuoso, Altera Quartus, ModelSim, LabVIEW, CodeWarrior, Xilinx, SPICE
Hardware: Oscilloscope, Digital Multimeter, Raspberry Pi, Arduino, Nexys 4 DDR, ZYNQ, STM32
Software Development Processes: Waterfall, Agile

Activities

NCAA Division III Men's Tennis | *Student Athlete* Aug 2017 – Present

Student Athlete Advisory Committee (SAAC) | *Student Athlete* Sept 2018 - May 2019, Aug 2021 - Present

- Represent Men's Tennis to help plan athlete events, as well as team activities like community service projects