Nathan Rizza

Email:nathanrizza@outlook.com
GitHub: github.com/NathanRizza – Website: nathanrizza.com

Education

Graduate: University of Florida, Fall 2022
- Degree: Electrical and Computer Engineering Masters of Science
- Depth: Computer Engineering Breadth: Signals and Systems
- GPA: 3.84

Undergraduate: Saint Vincent College, Spring 2021
- Major: Mechanical Engineering
- Minors: Computer Science, Math
- GPA: 3.7

Work Experience

Graduate Assistant – University of Florida, Jan 2022 – Ongoing
- Performed research, wrote reports and delivered presentations on the topic of FPGA and HLS as they relate to computer hardware security for the Electrical and Computer Engineering department.

Circuit Designer - SurfPlasma, Aug 2021 – Dec 2021
- Designed a controller to regulate power to the portable plasma reactors based on the readings of different sensors for consumer and business use cases.

Research and Projects

Framework for Mitigating Vulnerabilities in HLS Jan 2022 – Ongoing
- Modified the open source HLS tool Bambu to detect and fix security vulnerabilities.
- Performed design verification on the generated Verilog Code.

Soft Materials Tester Sep 2020 - May 2021
- Led a team in designing and building an Arduino micro-controller based soft materials tensile tester for the Saint Vincent College Engineering Lab.

Decision Making Risk Minimization Algorithm Sept 2020 - May 2021
- Wrote literature reviews, created 3D printed parts in CAD software, and performed circuitry design.
- Built an autonomous model car which was controlled using a risk minimization Algorithm.

Technical Skills

Programming Languages:
- C, C++, VHDL, Shell Scripting, Python, System Verilog, Matlab, Latex

Engineering Tools:
- ModelSim, Vivado, Quartus, KiCad, Solid-Works, Synopsis VCS

Familiar Operating Systems:
- Linux, Windows