Ryan Guidice

ryanguidice.com

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Education:

B.S. in Computer Engineering **Intended Graduation: May 2022**
Colorado State University, Fort Collins, CO **GPA: 3.887**

- IEEE: President (2020 – 2021), Treasurer (2021- Present), Undergraduate Liaison (2018 – 2020)
- Member of the Honors College, and member of the Tau Beta Pi and Eta Kappa Nu honor societies
- IEEE Computer Society Richard E. Merwin Scholar and Student Ambassador (2021 – present)

Experience:

Seagate Technology **May 2021 – Present**
VLSI Design and Verification Intern *Longmont, CO*

- Developed a Linux application, API, and driver in C for streamlining FPGA interfacing via PCIe
- Debugged RISC-V implementation through UVM register model generation and designing UVM test sequences
- Designed an IRQ combinational block using SystemVerilog

Hewlett Packard Enterprise **May 2020 – December 2020**
Enterprise Storage Tools and Metrics Engineering Intern *Fort Collins, CO*

- Managed the migration of an outdated Artifactory instance to an updated instance on a new server
- Developed several Python scripts to assist with the Artifactory migration and automate a syncing process between the two instances using Artifactory's REST API

Verus Research **May 2019 – August 2019**
Computer Engineering Intern *Albuquerque, NM*

- Developed a Python package focused on emulating Matlab plotting functionality to rapidly process and visualize data
- Debugged several VR environment development projects based in Unity

Technical Skills:

Programming Experience: Python (3 years), C/C++ (2 years), Verilog/SystemVerilog (1 year), UVM (6 months), HTML/CSS (3 years), Matlab (1 year), Java (2 years), ARM Assembly (6 months), Scripting (3 years)

Software Tools: Quartus Prime (3 years), Cadence Virtuoso (3 years), Synopsys Verdi (6 months), Vivado (6 months), Keil uVision5 (6 months), Artifactory (6 months)

Miscellaneous: 3D Printing, Tinkercad, Adobe Suite, Beginner PCB Design using EAGLE

Projects:

Find more at ryanguidice.com

- Built a smart mirror using a Raspberry Pi, the MagicMirror platform and a one-way acrylic mirror
- Designed smart blinds driven by a stepper motor controlled via a webserver with a Flask backend and a React.js, HTML, and CSS frontend
- Created a smart security camera using a TM4C123G microcontroller, IR sensor, Raspberry Pi and webcam
- Currently working on a team of 6 ECE students on an electric go-kart for my senior design project:
  - Head of the controls and software sub-team
  - UI dashboard display via a Raspberry Pi 4 and real-time controls processing via a Pine64 ROCKPro64
  - SBC's serve as a hardware hub for new modular controls platform, simplifying sensor interfaces
  - Exploring autonomous braking functionality through ultrasonic and lidar sensors
  - Kart serves as a tool for ECE outreach team to demo ECE applications to high school students

References Available Upon Request