Monique Payton Rehl

Electrical Engineering

Contact

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E-mail
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Skills

Embedded Systems
- ZYNQ-7000 SoC
- PIC16 Series
- Arduino/Raspberry Pi

PCB Design
- Eagle
- Soldering
- Troubleshooting

Computer-Aided Design

Team Organization & Communication

Languages

C, C++

Very Good

Verilog , VHDL

Very Good

Python

Good

Command Line

Very Good

Education

Aug 2019 – May 2023

Bachelor of Science: Electrical Engineering
Colorado School of Mines - Golden, CO
- Focus in Integrated Circuit Engineering
- Minor in Computer Engineering and Public Affairs
- McBride Honors Program
- **153.5 completed credits / 3.970 GPA**

Aug 2015 – June 2019

High School Diploma
Peters Township High School - McMurray, PA
- **4.00 GPA**

Projects

Aug 2021 – Dec 2021

Systems Exploration, Engineering, and Design Project
Designed and built an autonomous robot with a team to recognize and follow a track of blue tape
- Responsible for development of localization, tracking and driving the wheel's motor-encoders
- Wrote PID control systems for distance and velocity
- Git/GitHub for version control
- C and Python for coding

Aug 2022 – Dec 2022

Embedded/FPGA Oscilloscope
Designed and implemented a digital oscilloscope using the Xilinx Zynq-7000 Programmable Soc
- VHDL for tracking its state, incoming data, and video output on an internal FPGA
- C for accepting user input via computer interface on an embedded processor

Professional Experience

Sept 2019 – Current
(36 months)

Fighting Hunger at Mines – Treasurer
Collected and delivered food to food-insecure students in partnership with local coops, nonprofits, and farms
- Public Service, Coordination, Management

June 2022 – Aug 2022
(2.5 months)

Texas Instruments – Digital Design Intern
Worked on the DFT team while exploring and comparing new alternatives to EDA tools
- Command Line, Python, Verilog, EDA tools