

Kushal Kharel

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EDUCATION

Pennsylvania State University, Behrend

Bachelor of Science in Computer Engineering

graduation – May 2022

Erie, PA

Minor in Computer Science

- **Coursework:** Advanced Digital Design, C++, Java OOP, Data structures and Algorithms, Signals and Systems, Computer Architecture, Embedded Systems, Circuit Analysis/Design, Computer Networks, Operating systems

EXPERIENCE

Starline

July. 2021 – Present

Embedded Systems Engineering intern

Pittsburgh, PA

- Developed a software application using Python that created reports for management
- Updated product testing software by adding more features and functionality using C-sharp
- Designed and executed a WIFI signal strength test for products
- Created various documentations on software and testing
- Learned Modbus, TCP/IP, and SNMP protocols

Baldwin Borough Public Library

Aug. 2018 – Sept. 2019

Assistant Librarian

Pittsburgh, PA

- Managed and cleared the library database of any inactive accounts
- Registered new books and media into the system
- Learned communication skills by working with the patrons

PROJECTS

Management Software using Python

- Implemented a GUI application using Pycharm IDE for management to keep track of R/D projects
- Developed a algorithm to manipulate CSV file input to user chosen format in Excel

HTML/CSS/Javascript - Personal website

- Designed a portfolio website using HTML/CSS/Javascript
- Hosted website on Github
- Learned to code animations and other creative attributes on the website

PIC18F2520 - Led Controller using embedded C

- Configured the PIC micro-controller to change the led output based on switches using embedded C
- Employed PicKit 4 to program the PIC and to provide the 5 volts to the system

FPGA- 2 player VGA game

- Configured Basys 3 board to work with PS2 keyboard scan codes
- Desinged 2 payer game on the VGA output
- Integrated PmodJSTK joystick to control the second player while the first player was controlled via the keyboard
- Developed a custom ROM file, which kept the live scores of the players

SKILLS

Programming Languages : C/C++/C-sharp, Java, Python, Assembly, HTML/CSS

Hardware : VHDL, Verilog, PIC, Arduino, Raspberry PI, Circuit design/analysis