

Brennan Ventura

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Education

Oregon State University
Bachelor of Science, Electrical and Computer Engineering

Graduation: 06/23
Cumulative GPA 3.08

Professional Experience

Customer Service Representative | University Housing and Dining Services 03/22-06/23

- Demonstrated strong communication skills by effectively communicating with university residents and staff.
- Provided excellent customer service to a diverse range of customers, resolving issues and providing solutions in a timely and efficient manner
- Quickly grasped the functionality of newly implemented software, becoming a go-to resource for colleagues who faced challenges in the learning process

Projects

Soil Parameters Measurement and Monitoring 09/22-05/23

- Integrated a long-range wireless communication system utilizing LoRa technology, enabling seamless transmission of soil parameter data over distances exceeding 100 meters
- Analyzed system requirements and sensor specifications to determine the appropriate PCB layout, ensuring optimal component placement and signal integrity.
- Implemented effective power management techniques, incorporating a power converter on the PCB to efficiently regulate the voltage levels required for the device's operation.

Portable Digital Oscilloscope 1/22-03/22

- Developed and implemented user input code for the portable digital oscilloscope, enabling intuitive and efficient control of triggers and channel inputs through various user interfaces, such as buttons, rotary encoders, and switches.
- Utilized PCB design software, KiCad 6.0, to create detailed schematics and layouts, carefully considering routing and spacing techniques to achieve optimal performance of the digital oscilloscope

MNIST Classification with MATLAB 12/22

- Implemented a gradient descent algorithm in MATLAB to minimize a cross entropy loss function for classification using the MNIST dataset, achieving accurate and efficient recognition of handwritten digits.
- Implemented the K-nearest neighbors (KNN) algorithm in MATLAB for classification using the MNIST dataset, exploring the impact of different values of N on classification accuracy.

Technical Skills

Software Tools: LtSpice, Quartus, KiCad PCB Design, G-Suite, Slack, Microsoft Office, System Verilog
Programming Languages: MATLAB, C++, C, Arduino, Python