Kyle Pretty

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Education

Bachelors of Computer Engineering Co-op Program *Sep 2021 – May 2027*
Memorial University of Newfoundland
Enrolled in Academic Term IV

Work Experience

Co-op Engineering Student | *The Commons, Memorial University of Newfoundland* *Winter 2024*

- Completed a major PCB design project using KiCad and LTSpice, including appropriate documentation, to implement an analog toy piano to teach beginners how to solder
- Provided high standards of technical support to students, faculty, staff and members of the public
- Aided in running makerspace operations, including 3D printing, CNC milling, sewing and vinyl cutting
- Employed incident tracking, peer collaboration and public workshop presentation skills

Server and Social Media Manager | *Dildo Boathouse, Dildo, NL* *Jul 2022 – Sep 2023*

- Accurately entered orders into a Point-of-Sale (POS) System and processed payments
- Designed and deployed an enterprise-grade internet networking system, including external access points for a 6-room inn and POS implementation
- Provided exceptional customer service
- Aided in marketing using Adobe Creative Cloud and Microsoft Office

Skills & Technical Tools

Languages & Frameworks: C++, Django, HTML, Python, Tailwind CSS, Vue.js
Software: Adobe Creative Cloud, Autodesk Fusion, Autodesk Revit, Bash, Blender, Git, KiCad, LTSpice, Microchip Studio, MATLAB, Microsoft Azure, Excel, Word, Onshape, PSpice, Solidworks
Hardware: Surface-Mount and Through-Hole Soldering, Oscilloscopes, CNC Milling, 3D Printing
Certifications: Valid NL Driver's License, Valid Canadian Pleasure Craft Operator License

Student Teams

Memorial Formula SAE | *Memorial University of Newfoundland* *2023*

- Designed PCBs for a Tractive System Active Light, operating up to 600V using KiCad and LTSpice
- Designed a brake and accelerator pedal box, including sizing master cylinders and implementing safety features and hall-effect pedal position sensors using Excel, Solidworks, and Ansys

Projects

Automotive-grade Class-D Amplifier and Digital Signal Processor: Ongoing design of a low-cost, ultra-high-performance Class-D amplifier with digital signal processing capabilities. The completed design will have 600 watts of output power across 8 channels, 90% efficiency, sub-0.006% harmonic distortion at 1 kilohertz and access to advanced digital signal processing algorithms for audio tuning to the environment.
E-Commerce Web Design: Ongoing design of an e-commerce website for a local clothing business using Vite and Vue for frontend, Django for backend operations, and Stripe for payment processing.
Full Project Portfolio available on kylepretty.github.io