

Kyle Pretty

St. John's, NL | klpretty@mun.ca | kylepretty.github.io

Education

Memorial University of Newfoundland – Bachelors of Computer Engineering Co-op Sep 2021 – May 2027

- Completed Academic Term IV

Experience

Co-op Engineering Student, The Commons – Memorial University of Newfoundland Jan 2024 – May 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
- Ran makerspace operations, including 3D printing, CNC milling, sewing and vinyl cutting
- Employed incident tracking, peer collaboration, technical writing 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
- Handled marketing using Adobe Creative Cloud and Microsoft Office

Student Teams

Memorial Formula SAE, Student Team – Memorial University of Newfoundland Jul 2023 – Present

- 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 Audio Amplifier and Digital Signal Processor

- Design of a low-cost, ultra-high-performance Class-D amplifier with digital signal processing capabilities.
- The completed design will have 450 watts of peak output power across 4 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 development 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.

Complete Project Portfolio available at kylepretty.github.io

Skills

Languages & Frameworks: C++, Django, JavaScript, HTML, Python, React, SQL, Tailwind CSS, Vue.js

Software: Adobe Creative Cloud, Ansys FEA, Arduino IDE, Autodesk Fusion, Autodesk Revit, Bash, Blender, Git, KiCad, LTSpice, Microchip Studio, MATLAB, Microsoft 365, Azure, Onshape, PSpice, Solidworks, Visual Studio

Hardware: Surface-Mount and Through-Hole Soldering, Oscilloscopes, CNC Milling, 3D Printing

Certifications: Valid NL Driver's License, Valid Canadian Pleasure Craft Operator License