Jordan Lee

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Skills

Computer

- **Confident:** C, C++, Python, Bash, Git, Verilog
- **Experienced:** JS, HTML5, CSS, Assembly
- **Familiar:** NodeJS, ReactJS, PHP, Java, C#
- **Skills:** OOP, Embedded Programming, OS development, Networking, UX/UI development

Electrical/Mechanical

- **PCB layout:** Fritzing, Altium, KiCAD, EAGLE
- **Lab:** Oscilloscopes, hardware debuggers, multimeters
- **CAD:** AutoCAD, Inventor, SolidWorks, Fusion360
- **Machining:** Lathe, Mill, CNC, Additive machines (FFF)
- **Skills:** IoT development, PID control systems, G-Code Script

Work Experience

Firmware Developer / Pantheon Design Ltd. — MAY 2020-DEC 2020

- Lead software designer/developer for a Human Machine Interface in a medical grade ventilator
- Developed a custom extruder controller for a 3d printer for high speed precision printing
- Created a custom web-based interface to control a Duet board for high speed additive machines

Technical Projects

Pantheon Emergency Ventilator HMI — JULY 2020

- Created a Python script to control a blower/alarms, display user interface, and take patient data
- Integrated/developed ventilator's firmware & patient data management system in C++/Python
- Reconfigured a Pi 4 to host medical standard interface and control the other embedded systems

10x 3D Printer Interface — AUG 2020

- Created a custom Unix based operating system to host webserver for a high-speed 3D printer
- Designed & implemented a web interface using NodeJS & Vue to control a 3D printer

Encryption Algorithm — DEC 2019 – JAN 2020

- Created a Java based encryption algorithm using MD5 to encrypt passwords
- Implemented a SHA1PRNG salt generator to ensure no identical encryption key

Student Design Teams/ Clubs

Electrical & Mechanical Designer/ Unmanned Aircraft Systems — AUG 2019-PRESENT

- Rapid prototyping of airdrop components using 3d printers, & machining custom parts
- Designing a fully functioning airdrop system & rover using CAD: OnShape & SolidWorks
- Programming & implementing Arduino based solutions using C/C++

McNaughton Chair / UBC IEEE — MAR 2019-PRESENT

- Using & training students of electrical lab: oscilloscope, function generator
- Created & managed a lab room for students to use towards personal/ school-based projects
- Providing advice for project implementation or fabrication to engineering students

Education

Bachelor of Applied Science: Electrical Engineering / University of British Columbia

- 3rd year electrical engineering student — EXPECTED: MAY 2023