

Cindy Peng

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TECHNICAL SKILLS

Languages: Python, C++, C, JavaScript, SQL, HTML/CSS, Java

Frameworks/Tools: React.js, Node.js, MongoDB, Express.js, Unity, Docker, Google OAuth 2.0, Google Client API, Git, GhostInspector, Jira

EXPERIENCE

Project Lead

Jan. 2023 – Aug. 2023

Electrium Mobility — github.com/Electrium-Mobility/anti-spark/

Waterloo, ON

- Utilized **KiCad's schematic and PCB layout** features to create a comprehensive and well-organized anti-spark circuit design implemented into the personal electrical vehicles to prevent high-voltage sparks when dis/connecting
- Implemented **SPI signals** to communicate with DRV8301 motor driver and NRF23L01 transceiver module
- Modified Pulse Width Modulation duty cycle values to determine the speed of Brushless DC electric motors
- Utilizing SPI protocol to interface with a nRF24L01 module for **wireless communication** between boards

Javascript Developer

Sep. 2022 – Dec. 2022

Enzuzo

Kitchener, ON

- Implemented client-interactive **frontend** RSS Feed from scratch using **React** framework and **Javascript** routing
- Created, managed, and **modularized 90%** of automated tests using **Ghost Inspector** for enterprise & Shopify
- Independently conducted rigorous manual testing through **XPath** targeting for the production and staging

Desktop Services Technician

Jan. 2022 – Apr. 2022

Questrade Inc.

North York, ON

- Utilized **Active Directory** service for **200** Questrade employee account creation management and termination
- Re-imaged Lenvos and Macbooks with **Powershell** scripts to add laptops to proper OU's, push GPO's and SCCM
- Collaborated with Networking and System administration teams to collect data and troubleshoot internal issues that were affecting company executives, Citrix users, and Questrade employees

PROJECTS

🔗 Spotify Display Stats | *Node.js, Express.js, jQuery*

- Developed a web application using **Node.js** and **Express.js** that retrieve users Spotify top tracks
- Implemented a secure **authentication flow**, including login and callback endpoints that generates a random state for CSRF protection, sets cookies, and redirects users to Spotify's authorization page.
- Employed jQuery to streamline DOM manipulation tasks, enabling dynamic content updates and simplified event handling in the Spotify authorization flow project, enhancing the user experience

🔗 Mewzaki - Music Mixer | *Python, Google OAuth 2.0, pydub, moviepy.editor*

- Developed a **Python** script using **ytdlp** for automated Spotify song extraction, transformation into lo-fi variants, and subsequent upload to the Mewzaki YouTube channel
- Implemented secure **Google OAuth2** authentication for seamless access to the **Google Client API**, safeguarding client secret keys via a script-generated **token.pickle**
- Orchestrated audio and video content generation with moviepy.editor, achieving dynamic visuals and audio integration, while implementing ytdlp, pydub, and aubio to enable precise audio processing

Morse Code Puzzle | *Python, Google OAuth 2.0, pydub, moviepy.editor*

- Created a user-friendly puzzle in **C** by implementing a Morse code system by translating letters and numbers visually through a blinking LED light
- Utilized OOP concepts and **multi-dimensional arrays** to display Morse onto the **STM-32 Nucleo** board
- Allowed users to **interactive** with the program by corresponding the length of the push button to Morse code

EDUCATION

University of Waterloo

Waterloo, ON

Candidate for Bachelor of Applied Science (Computer Engineering), 3.5 Cumulative GPA

Sep. 2021 – Apr. 2026

* Recipient of University of Waterloo **President's Scholarship**