Amit Altman

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PROFESSIONAL EXPERIENCE

Electrical Engineering Student, *The JNE Group of Companies*   May 2024 – Aug 2024 | Hamilton, Canada
- Designed & issued various electrical drawings, ranging from 2D designs to single-line diagrams
- Sized cables & protection equipment given loads provided by client within project
- Created cable & panel schedules for cable routing, including their appropriate cable trays
- Followed electrical codes respective to the location of the project's development, including the OESC, NEC, IEC, and IEEE
- Aided the Automation/Controls team in the approval of control system drawings

IT Software Developer Co-Op, *International Language Academy of Canada*   May 2023 – Aug 2023 | Toronto, ON, Canada
- Developed information technology, forming various enhancements and creating automation flows for data engineering solutions.
- Eradicated existing manual and inefficient processes, saving countless hours spent on data management and tracking.
- Consistently delivered on sprint deadlines, utilizing Azure DevOps for appropriate documentation.
- Technical skills exercised include C#, JavaScript, HTML/CSS, and Microsoft's Power Platform including Power Apps, Power BI, Power Automate, and Dynamics 365.
- Additionally contributed to the web development of ad tracking using Facebook's API and Google AdSense.

SKILLS

Programming Languages/APIs — Java, C, C#, C++, JavaScript (Vanilla JS, Node.js, and React), React Native & Expo, Python (Flask, NumPy), HTML/CSS, Database Query (MySQL), Encryption (RSA), VHDL, Assembly, **Engineering** — Microsoft Excel, Power Platform, and Dynamics 365, Data Management, Azure DevOps, CAD software (AutoCAD & Fusion 360), Soldering, Computer Building, Arduino C, Intel Quartus, Altium Designer, Arduino HAL firmware, Electrical Engineering, Control Systems Design

EDUCATION

Bachelor of Applied Science - BASc, Computer Engineering, *Queen's University*   Sep 2023 – present | Kingston, ON, Canada
- Current Computer Engineering student, pursuing a dual-degree program in Physics
- Past Electrical Team Member for Queen's Racing Formula SAE Team

Bachelor of Engineering - BE, *University of Western Ontario*   Sep 2022 – Jun 2023 | London, ON, Canada
- Transferred to Queen's University following first year.
- Achieved a 3.7 GPA and admitted to the Dean's Honour List.

PROJECTS

AI Motion Tracking App, *Queen's ELEC 292 Course Final Project*   Apr 2024
Developed a machine learning classifier using scikit-learn to determine whether any data fed resembled that of a user walking or jumping given tracked data from phyphox. Successfully implemented bonus work of creating a user interface for the program using PyQt5, and implementing the phyphox API into the application for wireless data transmission to allow for live user motion tracking.

Charging Shutdown Circuit, *Queen's Racing Formula SAE Team*   Jan 2024
Development of a circuit that shuts down the appropriate charging terminals when any faulty is detected. Circuit is designed using Altium Designer, and firmware is implemented using Arduino HAL (hardware abstraction layer).

PricePerfect, *Hack The North 2023 Hackathon Team Project*   Sep 2023
Aggregates hundreds of eBay listings for any given query and gives you an estimate of the item's value and what it should be listed for. Estimations are based on the title submitted, or of an image taken of the object. The app uses Google's Vision AI API to scan and identify items, and a Python script scraps eBay's databases to retrieve price models from either the image's processed item or the entered search bar. The app runs on IOS and Android, developed using React Native and Expo.

Movie Playback, *First-Year Design Team Project*   Jan 2023 – Apr 2023
An engineering solution to the client's problem of being independent in movie selection with their impairments. The solution uses a Raspberry Pi on Linux running on-launch via Python script a full-screen local web application using HTML/CSS to display movies, and an Arduino controller transmitting input signals wirelessly to control the application.

Study Squid, *QHacks 2023 Hackathon Team Project*   Jan 2023
A full-stack web application that infinitely generates unique math and science problems to solve for students studying the field, using languages and APIs including Python, JavaScript, HTML/CSS, Flask, NumPy, and Wolfram API

Emulated Game Controller, *Personal Project*   Oct 2021 – Nov 2021
An Arduino device attached to a breadboard connecting multiple inputs including buttons and joysticks emulating Xbox 360 controller inputs via Arduino C with XInput API.

Pac-Man, *Personal Project*   Oct 2020 – Nov 2020
Re-creation of the original Pac-Man using Java from scratch using JFrame, with minimal artificial intelligence on ghosts.