Jerry You

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EDUCATION

University of Guelph Sep 2022 - Present
Bachelor of Computer Science Honours (Co-op) Guelph, Ontario

SKILLS

Languages	Python, JavaScript, HTML/CSS, Java, C
Tools	Git, Unix, Docker, WordPress, Grafana, Metabase, PgAdmin, Adminer, SQL
Frameworks/Libraries	Django, Flask, Pandas, SQLAlchemy

WORK EXPERIENCE

Data Engineer (Co-op) Sep 2024 - Dec 2024
Johnson Electric Holdings Ltd. Ancaster, Ontario

- Developed a Python-based ETL system to automate factory data processing, converting incoming measurement data into a PostgreSQL database with optimized scheduling using Windows Task Scheduler.
- Built a Django web application to provide an interactive interface for factory operators to view, query, and manage real-time factory data, improving operational efficiency.
- Designed and implemented SQL-based data visualizations for a factory dashboard, enabling workers to monitor machine activity, track downtime, and identify trends in production efficiency.
- Assisted with IT infrastructure and factory-related tasks relevant to software tasks, including configuring and deploying over 40 routers, troubleshooting network issues, and supporting operational workflows that integrated with factory data systems.

Lab Software Developer (Co-op) May 2024 - Aug 2024
University of Guelph Guelph, Ontario

- Developed a Python EMG analysis program with a GUI, capable of processing thousands of files at a time with up to 100,000 lines of data each, generating new Excel sheets, and visualizing the results.
- Created a webpage tool to assist with transposing kinematic data from Visual3D to Excel, allowing for easier data manipulation and analysis.
- Designed and customized a laboratory website in WordPress, optimizing themes and plugins to meet research needs.
- Built and installed new computers, set up software, and upgraded hardware, including troubleshooting and part replacements.

PROJECTS

Computer Hardware Website Dec 2023 - Present
Python, SQL, HTML/CSS, JavaScript pctracker.ca

- Utilized eBay's API with OAuth tokens to automate the instant extraction of real-time pricing data for second-hand computer hardware, handling up to 5000 calls per day.
- Developed algorithms to calculate statistics for prices, and implemented interactive data visualizations.
- Designed and implemented a user-friendly and aesthetic web interface, handling all server setup.
- Created a robust database system that allows users to build and manage custom PC configurations, storing and retrieving component compatibility data dynamically.
- Implemented a secure authentication system with Django's built-in 2FA, enhancing user security for login and account management.

Billiards Mar 2024 - Apr 2024
C, Python, HTML/CSS, JavaScript, SQL https://github.com/jerryyou04/billiards

- Developed a physics-based billiards simulation system integrating C, Python, and JavaScript, optimizing performance and interaction for real-time physics calculations and visualization (animated with SVGs).
- Implemented the core physics engine in C, focusing on collision detection, ball dynamics, and cue interactions to simulate accurate ball movements and responses upon impacts.
- Enhanced the simulation with Python using swig and SQL, handling complex game logic.