Jerry You

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EDUCATION

University of Guelph Sep 2022 - Present
Bachelor of Computing Honours, Computer Science (Co-op) Guelph, Ontario
- GPA: 3.7/4.0 - Dean's List 2023-2025

SKILLS

Languages	Python, JavaScript, HTML / CSS, Java, C / C++, SQL
Tools	Git, Unix, Docker, Nginx, pgAdmin, Grafana, Metabase
Frameworks / Libraries	Django, Flask, React, SQLAlchemy, Pandas, NumPy

WORK EXPERIENCE

Data Engineer (Co-op) Sep 2024 - Dec 2024
Johnson Electric Holdings Ltd. Ancaster, Ontario
- Built a Python ETL system to extract, transform and load over 3 million records daily into a PostgreSQL database, scheduled to run using Windows Task Scheduler for uninterrupted 24/7 automated data transfers.
- Developed and deployed a Django application for factory operators to view and manage employee-linked operational data, permitting admins to create custom queries that are stored as JSON, with operator responses also captured in structured JSON for easy access and analysis. Digitized records for 800+ shop floor users.
- Created SQL-powered dashboards in Grafana and Metabase to monitor machine performance and analyze downtime, giving operators real-time data visibility to make data-driven decisions.
- Supported IT infrastructure by configuring and deploying 40+ routers, resolving factory network issues, and integrated IT systems with data pipelines to support seamless factory-software integration.

Lab Software Developer (Co-op) May 2024 - Aug 2024
University of Guelph Guelph, Ontario
- Built a Python GUI tool for EMG analysis that processes large-scale data files (1M+ lines), visualizes signals with Matplotlib, and exports cleanly formatted CSVs.
- Automated the cleanup of Visual3D kinematic data with a script, making it easier to work with in Excel and other spreadsheet tools.
- Set up and customized a WordPress site for the lab, adjusting themes and plugins to share lab info and updates.
- Built and configured custom computers to run demanding simulations and data processing, including hardware installation, software setup, and troubleshooting.

PROJECTS

PCTracker | Python, Django, MySQL, Nginx/Gunicorn pctracker.ca | Dec 2023 - Present
- Built and launched a full-stack Django application for secondhand PC parts, allowing users to search for live eBay pricing for any product, create custom PC builds, and view benchmarks for PC parts.
- Fetched real-time pricing data using eBay's API with OAuth, storing the results for secondhand computer hardware, and processing up to 5,000 API calls daily.
- Designed a database system to manage part specifications, pricing, linking compatibility between components, and supporting saved builds tied to user accounts.
- Created a secure account login / registration system with Django's built-in two-factor authentication, protecting user accounts and saved PC configurations.

Pool Simulation | C, Python, SWIG, SQLite github.com/jerryyou04/billiards | Mar 2024 - Apr 2024
- Developed a web app of a pool physics simulation that calculates ball collisions, friction, and cue interactions in C, allowing two users to play pool on a web browser.
- Implemented a high-performance physics engine in C that handles collisions and interactions, using mathematical and physics-based calculations.
- Utilized SWIG to connect the physics engine with Python, combining fast low-level processing with flexible high-level game logic.
- Designed a frontend using JavaScript, rendering each frame of the simulation as a separate SVG, creating smooth animations of the motion and collisions of the pool balls.