Harsh Patel

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Technical & Soft Skills

- **Languages**: Python, Java, JavaScript, TypeScript, C, SQL, HTML, CSS
- **Frameworks**: Vue.js, React, Node.js, Express.js, Flask, PyQt5, Matplotlib, Pandas, PySpark, NumPy
- **Tools**: Git, Jira, CI/CD, Power BI, Sisense, Microsoft Suite, Terraform, Docker, Airflow, Databricks, Wireshark
- **Database & Cloud**: SQLite, PostgreSQL, Snowflake, AWS (EC2, ECS, ECR, S3, Redshift, Lambda, SNS)
- **LLM tools:** Replit, Cursor, Claude, ChatGPT, Perplexity, Gemini, Copilot
- **Soft skills:** Communication, Collaboration, Research & Analysis, Ownership, Learning Agility

Experience

Python Developer Co-op	**Solaires Entreprises Inc.**	**Jan 2025 - Aug 2025**

- Designed and implemented a state machine in a standalone PyQt5 application to dynamically render up to 14 boxplots using Matplotlib, based on any combination of 7 interactive checkboxes.
- Updated the local standalone PyQt5 software by adding experiment-specific checkboxes, modifying the database schema, integrating a calendar widget, and enhancing the UI with additional labels, buttons, and functionalities.
- Created Flask middleware with 10+ API routes to facilitate seamless communication between the Vue.js frontend and the Node.js backend.
- Built a secure Vue.js login page using HTTP-only cookies for session validation, added logout and frontend inactivity timeout features, and created a swimlane diagram illustrating the JWT authentication logic.
- Developed a Vue.js page with 2 unique layouts to display database items, featuring responsive resizing, pagination, and adjustable content display that dynamically adapts the layout.

Software Engineer Intern	**Clutch Canada**	**Jan 2022 - Aug 2022**

- Developed a docker compatible scraper to gather data from Autotrader for business executives to make decisions on pricing and demand of the vehicle, preventing 80% of errors generated from connection issues.
- Executed scraper inside docker container (automated with Airflow DAG) by structuring ECS Fargate cluster and ECR repository, resulting in the reduction of scraper runtime by 30%.
- Initiated and designed software, integrated with Airflow, that converts unstructured PDF files to CSV to analyze vehicle data, decreasing 80% of time spent on the evaluation of each PDF file.
- Deployed a lambda function that format alerts from SNS and delivers to the specified Slack channel, ensuring alerts miss rate of 0%.

Software Developer Intern	**Curbie Cars**	**Sep 2021 - Jan 2022**

- Redesigned the data gathering process for CBB API using asynchronous and multi-threading algorithms in Python to develop machine learning models for vehicle price prediction, improving script runtime by 300%.
- Collected visitor's data from Matomo API using Amazon Lambda for the marketing team to understand customer needs, resulting in 20% higher website traffic and improved customer service.
- Presented a comprehensive 50-slide solution to the CTO detailing the visitor identification process using Matomo.

Projects

Bhavsej

- Built a full-stack TypeScript order management system with React and Express.js, using Replit and Cursor to accelerate development and support rapid iteration across 10+ frontend components and 10+ backend routes.
- Integrated Google Sheets API and automated HTML email notifications to create a production-ready data pipeline that handled all customer orders, with ChatGPT and Copilot assisting in debugging and edge case handling.
- Implemented core business logic covering 5-stage order lifecycle management, multiple pricing rules, time-window delivery scheduling, and full Zod-based validation across 10+ form fields, using Claude, Gemini, and Perplexity to refine logic and ensure consistency.

Education

Bachelor of Software Engineering	**University of Victoria**	**Graduated: Nov 2025**

- GPA: 3.27
- Relevant Courses: Data Mining, Data Pattern and Recognition, Artificial Intelligence, and Massive Datasets