Hanz Nathan Po

(647) 674-2006 | hnqpo@uwaterloo.ca | LinkedIn | GitHub | Website

Education

University of Waterloo — Waterloo, ON
Bachelor of Computer Science (Co-op) — *Sept. 2024 – Apr. 2029*

Experience

Software Engineer Intern - Retail Buyer Experience Journey Team — May. 2025 – Present
Shopify — *Toronto, ON*

- Increased in-store conversion and loyalty by integrating buyer profiles into point of sale, enabling personalized incentives, saving merchants 52 hours per week, and reducing checkout friction for 30% of customers
- Developed and maintained scalable backend services using Ruby on Rails, GraphQL, and gRPC, enhancing application performance and supporting seamless integration with Shopify's platform

Senior Data Quality Specialist - Advanced Coding Team — Sept. 2024 – Present
Cohere — *Toronto, ON*

- Improved coding abilities of large language models including Command R7B, helping achieve 71.4% on the MBPPPlus and 22.2% on the LBPP benchmarks by providing reinforcement learning from human feedback
- Recommended optimizations and provided feedback for 275 coding tasks in Python, JavaScript, C, SQL, and C++

Quantitative/Machine Learning Developer — Nov. 2024 – Present
Wat Street — *Waterloo, ON*

- Utilized PyTorch to reach an accuracy level of 96.8% for neural networks in image classification tasks.
- Employed SciPy to create an implied volatility algorithm using the Newton-Raphson method
- Developing Monte-Carlo simulation based method to predict the future prices of European options

Projects

Albumify - Automated album covers for Spotify playlists — *Python, JavaScript, React, SQL, CockroachDB, FastAPI*

- Created the user interface and frontend logic for Albumify, a web application aimed at automatic album cover generation for Spotify playlists, using **React, JavaScript, and Chakra UI**, including **Spotify API** integration
- Designed and implemented a highly scalable backend using **CockroachDB** (PostgreSQL-based), enabling distributed data processing and resilience, coordinating with a cross-functional team and utilizing **Git** and **Figma**

Exploring the adoption of clean energy across the world — *Python, Pandas, Scikit-learn, Matplotlib*

- Using **regression models**, analyzed the correlation between economic factors such as GDP, Human Development Index scores (HDI) against how much of a country's energy comes from emission-free and renewable sources
- Leveraged **Pandas** to import and parse large datasets, observed patterns with **Scikit-learn's** regression functions, then visualized interesting findings through **Matplotlib & GeoPandas** (world maps, scatter plots, line graphs)
- Achieved a **correlation coefficient of 0.43** on one model, indicating a moderate positive correlation between economic development and the use of clean energy

GitGest - Repository commit history summarization — *Python, JavaScript, React, Flask, GitHub API, Cohere API*

- Constructed the backend logic of GitGest, a tool that provides developers with commit history summaries using **Flask**, including **Cohere API** and **GitHub API** integration with **OAuth** user authentication
- Worked with designers and frontend developers to transform **Figma** designs into a functional and user-friendly web application, using tools such as **Git** and **GitHub**

Intellimailr - AI powered cold emailing platform (MetHacks award winner) — *Python, Bootstrap, Flask, Cohere API*

- Developed Intellimailr, a Flask-based application that automates personalized cold emails for users seeking potential clients and customers
- Implemented web scraping using Beautiful Soup to gather contact information, enhancing connectivity between user and their target audience
- Designed a user-friendly interface with Bootstrap, HTML, JavaScript, and CSS, facilitating seamless interaction between users and the application's backend

Skills

Programming Languages: Python, TypeScript, Ruby, SQL, Java, C#, C++, C, Scheme (Lisp), Haskell, MMIX, Bash
Technologies: Rails, React, Flask, React Native, PyTorch, Pandas, NumPy, Scikit-learn, GraphQL, gRPC, Tailwind
Tools: Git, Claude Code, Cursor, Node, Jupyter Notebook, Figma, Unity Engine