HANZ NATHAN PO

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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*
- Drove increased in-store conversion and loyalty by integrating Shop buyer profiles into POS checkout, enabling personalized incentives and reducing checkout friction for 30% of GMV-driving customers
- Developed and maintained scalable backend services using Ruby on Rails, 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
Libraries/Frameworks: React, Flask, Rails, React Native, PyTorch, Pandas, NumPy, Scikit-learn, SciPy, Tailwind, Express
Tools: Git, GitHub, Visual Studio Code, Node, Jupyter Notebook, Figma, Jira, Trello, Vite, Unity Engine