Brandon Li

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Education

University of Toronto — Toronto, ON
Bachelors of Applied Science in Computer Engineering (cGPA: 3.68/4.0) — *September 2024 – April 2028*
Relevant Coursework: Computer Fundamentals (C)

Experience

Applied ML Research Fellowship — May 2025 - current
University of Toronto — *Toronto, ON*

- Trained **XGBoost** models with real experiment data to predict steel quality within a **0.974 R^2**
- Presented research findings to over **300+ attendees** at UofT Undergraduate Engineering Research Day
- Increased model accuracy by **37.5%** through feature lagging and feature , using **pandas** and **NumPy**
- Sped up Optuna hyperparameter optimization **20x** using **High-Performance Computing** clusters
- Validated model quality using cross-validation and Shapley values utilizing **scikit-learn** and **SHAP**

Software Engineering Intern — June 2025 - August 2025
Supercog AI — *Remote*

- Developed a RAG PR code review agent by collaborating with 5 engineers, gaining experience with **Git**
- Automated **30%** of manual tasks for various workflows by developing **5+** AI Agents using **Python**
- Contributed bug fixes and feature improvements to open-source agent libraries by resolving **10+ GitHub issues**

Projects

ReCall (GenAI Genesis 2025) | *Typescript, React, Node.js, Cohere, Google Gemini* — March 2025

- Developed a **Retrieval-Augmented Generation** powered browser extension to improve browsing history search
- Implemented **Gemini 2.0 Flash** to identify webpages that follow user-specified tracking rules
- Utilized **Cohere Rereank** to identify relevant browsing history for search feature and chatbot context
- Applied **React Flow** to visualize browsing history as a knowledge graph with keyword connections
- Styled frontend with **TailwindCSS** and **Shadcn** for a professional, user friendly UI
- **Finalist** at GenAI Genesis 2025

Barcode Inventory Solution | *Python, React Native, FastAPI, SQLModel, PostgreSQL* — April 2025

- Built a full-stack automated inventory system to speed up inventory logging operations by **830%**
- Created a **React Native** mobile barcode scanning app using the **Expo Camera** library
- Designed a **FastAPI** backend using a **PostgreSQL** database and the **SQLModel** ORM, deployed with **Ngrok**

Awards

Top 4 UofT Engineering Kompetition — January 2025
University of Toronto — *Toronto, ON*

- Lead the development of an earthquake response for reporting infrastructure damage using **Python**
- Rendered interactive maps through the implementation of **Folium** and Los Angeles **ArcGIS** data
- Collaborated and worked effectively within a team by leveraging version control through **Git** and **Github**

Fall 2024 & Winter 2025 Dean's Honours List — Feb 2024, May 2025
University of Toronto — *Toronto,ON*

- Award for achieving a weighed term average of 79.5% or higher.

Certificate of Distinction Waterloo Canadian Computing Competition — February 2024
University of Waterloo — *Waterloo, ON*

- Ranked in the **top 800** contestants in the Senior Division by solving competitive programming problems
- Optimized algorithmic efficiency using Big O complexity analysis and Dynamic Programming principles

Technical Skills

Languages: Python, Java, C, C++, SQL (SQLite, MySQL, PostgreSQL), JavaScript, JSX, Typescript, HTML, CSS
Frameworks: FastAPI, Node.js, React
Developer Tools: Git, Visual Studio Code, Jupyter Notebook, Unix
Libraries: NumPy, Matplotlib, XGBoost, Optuna, Scikit-learn, SQLModel, TailwindCSS, Shadcn, Tensorflow