JAMES HAN

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EDUCATION

University of Toronto (Co-op Program) Toronto, ON, Canada
Bachelor of Science in Computer Science, Statistics, and Economics *Sep. 2023 – May 2027*
- Awarded the Trinity College Academic Merit Grant, Leonard Mclaughlin Scholarship

EXPERIENCE

RBC Capital Markets Incoming May 2026
Quantitative Trading Analyst — Global Equities *Toronto, ON*
- Developing **low-latency, ML-driven trading systems** for RBC Capital Markets' Global Equities electronic trading desk, optimizing execution speed and strategy performance across live markets
- Building **Python** and **C++** pipelines for quantitative research, market microstructure modeling, and real-time analytics on sub-millisecond trading data

Mozilla Oct 2025 – Apr 2026
Full-Stack Software Engineer — Privacy Engineering *Berlin, Germany · Remote*
- Engineering **privacy-preserving data infrastructure** and browser-side telemetry systems protecting **250M+** Firefox users worldwide
- Implementing **Rust**, **Python**, and **TypeScript** services for encrypted metrics collection, cookie partitioning, and cross-origin tracking protection

Anthropic Sep 2025 – Present
Builder Ambassador *San Francisco, CA · Remote*
- Leading Toronto's flagship **AI hackathon** with **700+ developers**, securing partnerships and funding from Anthropic and corporate sponsors
- Delivering workshops on **LLM integration**, **MLOps**, and scalable deployment for **1500+** university students across Canada

Department of Computer Science, University of Toronto May 2025 – Aug 2025
Software Engineer (Supervised by Prof. David Liu) *Toronto, ON*
- Enhanced the **PythonTA** static analysis engine by introducing **AST-level optimizations and caching**, reducing response latency by **40%** across **3000+** student submissions
- Developed core infrastructure for **MarkUs**, a grading platform used by **20,000+** students at UofT and Waterloo, using **React**, **Docker**, and **Rails** to streamline data pipelines and improve scalability

PROJECTS AND AWARDS

Hack the North 2x Award Winner (Orbit) | *OpenCV, Langchain, React* Sept 2025
- Built facial recognition system with **OpenCV** and **Deepface** achieving **sub-300ms** with **Groq/Cerebras** AI pipeline

1st Place at Google x Hack the Future (Revo) | *GCP, Gemini, FastAPI, React* Mar 2025
- Built **Gemini** fraud detection system reducing fraud by **57%**, deployed on **GCP** with **FastAPI** backend—**1st** among **260** teams, presenting at Google HQ

1st Place at UofTHacks (Persona) | *Next.js, Three.js, OpenCV, Mediapipe* Jan 2025
- **1st** among **2000+** applications—built AI Agent with 3D **Three.js** avatar and **multi-threaded** ML pipeline for real-time emotion analysis

LEADERSHIP EXPERIENCE

Vice President @ UofT Blueprint
Organizing programming for 4 engineering teams (**55 SWEs**) developing full-stack apps for Mozilla & City of Toronto
Director Campus Strategy @ UofT AI
Organizing technical workshops, industry talks, and software development events for 2350+ undergrad students

TECHNICAL SKILLS

Languages: Python, JavaScript/TypeScript, Java, SQL, C#, C++, R, Ruby
Backend / Data: Node.js, .NET, Flask, FastAPI, Rails, SQL Server, PostgreSQL, Redis, ETL Pipelines
Frontend: React/Next.js, Vue.js, SvelteKit, Three.js, HTML/CSS, Figma
Cloud/DevOps: AWS, Azure, GCP, Firebase, Docker, Git, CI/CD, Agile
ML/AI: PyTorch, TensorFlow, Pandas, NumPy, OpenCV, Mediapipe, Langchain, scikit-learn, Jupyter