

Caleb Ng

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SKILLS

Languages/Frameworks: Python, Django, PyTorch, Java Spring Boot, TypeScript, React, Next.js, Express.js, C++
Technologies and Tools: AWS, Azure, Docker, Snowflake, GitHub Actions, Jenkins, MS SQL Server, PostgreSQL

EDUCATION

University of Waterloo

Bachelor of Computer Science, AI Specialization

Sept 2022 - Present

Waterloo, Ontario

- **Relevant Coursework:** Artificial Intelligence, Machine Learning, Neural Networks, Computational Vision, Algorithms
- **Technical Lead** for the University of Waterloo Analytics Group for Games and Sports ([UWAGGS](#))

EXPERIENCE

Incoming Software Engineer Intern

Rundoo (Startup Backed by Bessemer Venture Partners, CRV, and Sequoia)

Sept 2026 - Dec 2026

Redwood City, California

- Building AI-first POS systems for independent supply stores.

Software Engineer Intern

Capital One

May 2026 - Aug 2026

Toronto, Ontario

- Building **Java Spring Boot** microservices and leveraging **Kafka** message streams and **Amazon EMR** batch processing to power a decision engine that routes delinquent accounts toward personalized credit hardship relief.
- Secured Artifactory (central artifact repository) access for **6** microservices, implementing **JWT** Bearer-token authentication backed by **AWS Secrets Manager** and **IAM** role policies.
- Scheduled deployments for **8** applications via internal **Jenkins**-based **CI/CD** platform to automate builds and releases on a biweekly cadence, ensuring consistent deployment frequency and reducing manual overhead.
- Decoupled infrastructure from data deployment for a pipeline that auto-triggers **EMR** jobs on new **S3** data via **Lambda** and **SNS**, migrating provisioning into a dedicated IaC repo to resolve a design anti-pattern ahead of an internal deadline.

Data Solutions & Infrastructure Engineer

University of Waterloo Athletics

May 2025 - Present

Waterloo, Ontario

- Spearheaded data analytics initiatives for the men's basketball team by launching a *Player-to-Pro* projection system using **Python** and **CatBoost**, benchmarking athletes against professional players to guide player development.
- Created a **GitHub App** with scoped permissions that enables **CI/CD** workflows to push to protected branches across **5+** applications, unblocking automated API data acquisition while maintaining branch protection for developers.
- Integrated **Microsoft Entra ID** authentication with organization applications to prevent unauthorized access of sensitive data.

Full Stack Engineer Intern

Avante IO

May 2025 - Aug 2025

Toronto, Ontario

- Shipped end-to-end features for a document management and compliance platform by implementing **React** UI components, **Django** API endpoints and **PostgreSQL** schemas, enabling users to manage insurance claims and invoices.
- Developed a customer-facing dashboard to track multiple **Celery** tasks, displaying real-time task metadata to provide clients direct visibility into long-running background processes.
- Delivered a **Python** ETL data pipeline for automated lien intake by converting claims into structured records, removing the need for manual data entry.

Full Stack Engineer Intern

PureFacts Financial Solutions

Sept 2024 - Dec 2024

Toronto, Ontario

- Engineered features for a wealth management platform in **React** and **C# (.NET)** to handle intricate fee calculations, ensuring accurate financial reporting for major clients, including the Royal Bank of Canada.
- Optimized UI rendering speeds by **50%** through refactoring **75+** components into reusable, low-latency modules.
- Built a robust suite of interactive charting components using **TanStack Table** and **Recharts**, enabling clients to visualize holdings, allocations and income data interactively.

PROJECTS

NBA Champion Predictor

- Achieved **85%** accuracy predicting NBA playoff outcomes by building an end-to-end machine learning pipeline with **Selenium**, **Beautiful Soup**, **Pandas**, and a cross-validated **Ridge Regression** model.

Judges Portal

- A platform for [Mecha Mayhem 2025](#), Canada's largest robotics competition, to centralize judge-competitor coordination for **3000+** users and **100+** teams.