

# Minh Thang Cao

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## Education

### Carleton University

Ottawa, Ontario, Canada

Bachelor of Computer Science, Co-operative Education

Sep 2019 – Mar 2024

CGPA: 3.77 (A+). High Distinction. On annual Dean's Honour Lists from 2019 to 2023.

## Experience

### Amazon | Software Dev Engineer

Jun 2024 – Present

- Contributing to the development and maintenance of the payment system in Amazon using Java for backend
- Designing and implemented new features and optimizing existing services to improve payment experience of customers. Conducting design and code reviews for peers, including feedback on architecture and design solutions
- Handled ops work for applications and services hosted on AWS using various technologies like S3, CloudFront, ECS, Lambda, API Gateway and CloudWatch as well as maintained CI/CD pipeline using AWS CDK

### Amazon | Software Engineer Intern

May 2023 – Aug 2023

- Developed a size preview on Amazon Seller Central's 1-by-1 item creation experience to help sellers minimize invalid inputs during product listing using React + Redux (TypeScript), Spring Framework (Java) and AWS S3
- Reduced listing error rate and monthly negative feedback on 1-by-1 item listing page by 5% for 2.5M+ sellers
- Built automatic selecting feature for dropdowns, lowered sellers' average time spent to create listings by 3%

### Pattern Jobs | Software Engineer Intern

May 2022 – Aug 2022

- Deployed scalable API services using Express.js (TypeScript) with AWS Lambda for data syncing which automates workforce recruitment and management (previously manual), reduced processing duration by 10 times
- Applied new design to the Flutter mobile app by creating an internal UI library with reusable widgets
- Set up automated database migration system on CI/CD pipeline with Docker and Terraform

### Kinaxis | Software Engineer Intern

May 2021 – Aug 2021

- Implemented in C++ a cycle detection graph algorithm that combines variances of strongly connected components and cycles enumeration algorithms, enhanced supply planning outputs for over 200 global enterprises
- Improved running time of the application's existing supply chain cycle detection algorithm from over 12 hours to 5 seconds on customer data sets, produced high-quality and detailed cycle data

### CU Blueprint | Volunteer Software Developer

Sep 2020 – Aug 2021

#### Beneficent CRM

- Produced a CRM full-stack application for non-profit organization to manage interest-free loans by allowing clients and hosts tracking applications, contracts and payments using React, Node.js, Express.js and MongoDB
- Helped accelerate the manual application screening and loan distribution, saved over \$263,000 of funding

### Carleton University | Undergraduate Research

May 2020 – Aug 2020

#### Closest-pair Doubling

- Explored a divide-and-conquer algorithm that utilizes doubling dimension concept to calculates the closest-pair distance of points on multi-dimensional spaces without knowing coordinates
- Developed from scratch with C++, analyzed and proved the algorithm's logarithmic running time in practice by analyzing the output data and successfully led the original research project to a conclusion

## Projects

### Connect 4

JavaScript, React, HTML, CSS, Node.js, Express.js, Socket.IO, MongoDB

Online real-time Connect 4 game that supports authentication, authorization, in-game chatting and ranking

## Skills

**Languages:** Python, JavaScript, TypeScript, Java, C, C++, HTML, SQL, Bash

**Technologies:** React, Redux, Node.js, Express.js, Flask, Spring, CSS, MongoDB, Firebase, WebSockets, React Native, Flutter, Docker, Git, Linux, Matplotlib, AWS, QNX