

# Tom Zhu

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## EDUCATION

**Carleton University** | *Bachelor of Computer Science (Honours), 4.0/4.0 GPA (A+)* **Sep 2019 – May 2024**

- Awards: Entrance Scholarship (\$16,000), Computer Science Award (\$1,000), Dean's Honour List
- Relevant Coursework: Design & Analysis of Algorithms, Web Applications, Artificial Intelligence, Operating Systems, Object-Oriented Software Engineering, Programming Paradigms, Database Management Systems

## EXPERIENCE

**Databricks** | *Software Engineer Intern* **May 2023 – Aug 2023**

- Building Delta Sharing anomaly detection with Scala, Python, Spark, Bazel, Jenkins, Git, Kubernetes, Prometheus

**Coinbase** | *Software Engineer Intern* **May 2022 – Sep 2022**

- Deployed Docker containerized real-time query engine on AWS to improve observability of Prime Broker algorithm engine by providing platform to generate complex queries, analytics, and dashboards with sub-second latencies
- Prepared Golang command-line tool with Kafka producer to forward and log over 40K events per second to data stream
- Created Python package to consume denormalized Kafka event stream into a set of curated dynamic tables and visuals
- Enabled single sign-on by creating proxy service in Golang to limit access to sensitive client data

**Shopify** | *Software Developer Intern* **Sep 2021 – Dec 2021**

- Took ownership of project to implement merchant cancellation of spending cards by creating React components and GraphQL mutations in Ruby on Rails, reducing related support requests by 100% and increasing autonomy
- Devised yearly summary page using React with TypeScript and GraphQL, giving merchants insight into annual trends
- Established utility functions in TypeScript to allow for the testing of React hooks mounted within the Banking context
- Built internal admin transactions list using Rails MVC to view associated transaction details for 1000+ merchants

**JSI Telecom** | *Software Developer Co-op* **May 2021 – Aug 2021**

- Combined test and analysis tools into cohesive Angular platform enabling long-running tests, experiments, reporting
- Formed REST API services in Spring Boot to interact with JPA repositories and manage jobs in MySQL database
- Instituted multi-threaded Java job runner with Quartz cron scheduling to automatically trigger recurring jobs
- Awarded **Co-op Star Performer** for exceeding expectations and contributing at the level of a Junior Developer

**Carleton University** | *Undergraduate Teaching Assistant* **Sep 2020 – Apr 2022**

- Evaluated student work, addressed inquiries, and facilitated weekly tutorials and office hours with over 60 students
- Courses: Intro to CS (Python), Discrete Structures, Web Applications (JavaScript, Node.js, Express, MongoDB)

## PROJECTS

**Blamechain** | *JavaScript, React, Node.js, Google Cloud, NLP, Speech-to-Text* **devpost.com/software/blame-game**

- Designed app that saves real-life arguments onto the blockchain, using analytics to confidently assign blame to parties
- **Winner at Hack the North, Canada's biggest hackathon** (1,600+ participants)

**Carma** | *JavaScript, React, AutoML, TensorFlow.js, Firebase, Google Cloud* **devpost.com/software/carma-lown32**

- Developed pre-drive tests to detect facial and reaction time indicators of impairment, creating less insurance risk
- **Best Use of Google Cloud, Intact Insurance Innovation Challenge Winner** at Hack the 6ix

## VOLUNTEERING

**CU Blueprint** | *VP of Engineering* **Sep 2020 – Present**

- Produced CRM platform in React, MongoDB, Express, and Node.js for non-profit distributing interest-free loans by allowing clients and admins to track applications, payments, and contracts, helping save over \$263,000 of interest
- Coordinated test-driven Agile team while facilitating sprint planning, backlog grooming, stand-ups, and demos
- Communicated directly with non-profit organizations to scope projects and conducted interviews to recruit members

## SKILLS

**Languages:** Java, Python, JavaScript, TypeScript, Ruby, C, Swift, SQL, GraphQL, PHP, Scheme, Prolog, Golang

**Frameworks/Libraries:** React, Rails, Angular, MongoDB, Node.js, Express, Firebase, Flask, WebSockets, Spring

**Developer Tools:** Git, DigitalOcean, Jira, Agile, Docker, Google Cloud, Netlify, Heroku, MongoDB Atlas