

Daniel Chen

🐔 potatoeggy | ✉ d7chen@uwaterloo.ca | 🌐 potatoeggy | 🌐 eggworld.me

Education

University of Waterloo

B.A.Sc. in Computer Engineering, Honours — 3.7/4.0 GPA

Sep 2022 – Apr 2027

Waterloo, ON

- **Involvements:** UW Orbital Satellite Design Team, Intramurals (Beach Volleyball), Creative Writing Club (Founder)
- **Hackathons:** TreeHacks 2025, StormHacks 2022 (EdTech Winner), YRHacks 2022 (IBM Open Source Winner)

Experience

Backend Lead

Hack the North

Mar 2023 – Jan 2025

Waterloo, ON

- Led 6-person engineering team, shipping shift scheduling system and hardware inventory system to **6000+ users**
- Streamlined event check-in times for **1900+** guests by automatically generating Apple Wallet passes
- Overhauled CI/CD pipelines, speeding up builds by **35%** by parallelising testing and type checking with **Buildkite**
- Resolved slowdowns by **introducing OpenTelemetry tracing** onto **Grafana** dashboards managed in **Kubernetes**
- Slashed dev server reload time by **93%** by introducing threading and pre-transpiling generated code

Software Engineering Intern

Magna (YC W22)

Sep 2024 – Dec 2024

New York, NY

- Enabled **one-click creation and deployment** of landing pages that each distribute **1 million+** token allocations
- Investigated and **improved initial load times by >60%** for client sites by caching blockchain reads in **Redis**
- Created and refactored data models, controllers, and **GraphQL APIs** to store and deploy site configurations
- Migrated internal systems & libraries to an event-based architecture, reducing query boilerplate by **50%**

Software Engineering Intern

Dropbase (YC W20)

May 2023 – Aug 2023

Remote

- Shipped **static analysis tool** for platform's **custom SQL dialect** by recursively processing an abstract syntax tree
- Architected platform to clone, sync, and visualise databases for **3000+ enterprise users** in **Python** and **React**
- Designed **merge conflict resolution system** to handle data mismatches, reducing user-reported errors by **35%**
- Built a unified API to seamlessly query and filter **8 data sources** such as MySQL, Airtable, and Stripe

Software Developer Intern

Immigr8

Jan 2024 – Apr 2024

Remote

- Built and launched passport/private document storage platform for **200+ users** using **Spring Boot** and **React**
- Secured REST endpoints with **role-based permissions** and **JWTs**; monitored and logged alerts via CloudWatch
- Implemented document **OCR pipeline** with Lambda, Textract, and **S3** to automatically parse and tag uploads
- Created parallel **CI/CD system from scratch** with **Terraform** and Jenkins to deploy **AWS Lambdas** on commit

Projects

Mandown 🐍 | Python, Qt

- Created a CLI and GUI to convert webcomics into e-ink-optimised files with **50+ stars** and **7 forks** over **3 years**
- Expanded support for new formats and features **based on user demand**, minimising regressions with E2E tests
- Implemented **image caching and multithreading** to increase download and processing speeds by **300%**

Jeopardy! 🎮 🐍 | Vue, TypeScript, WebSockets

- Developed a beautiful and polished client/server game with **real-time multiplayer** in **Vue** and **WebSockets**
- Designed a **custom JSON protocol** over **WebSockets** to synchronise game state and handle buzzer events

Technical Skills

Languages: Python, TypeScript/Javascript, Rust, Java, C/C++, SQL, HTML/CSS

Frameworks: Node, React, Vue, GraphQL, Spring Boot, Express, Redis, Terraform, Prisma, Apollo, Axum

Tools: Linux, Postgres, Git, Docker, AWS, GCP, Kubernetes, Figma, Jenkins, nginx