

# SIMON HUANG

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## EDUCATION

**University of Waterloo** - Bachelor of Software Engineering, Honours

Sep 2020 – May 2025

## EXPERIENCE

**Scrawlr** – Backend Developer Intern

May 2024 – Aug 2024

- Developed a health page using PHP and Laravel to monitor production and staging services for all federations
- Implemented tests for configuration, connection, and permission errors across **five** services: Redis, S3, PostgreSQL, Sentry, and InfluxDB
- Reduced health GET request latency by **95%** by mirroring intuitive design and minimizing function timeouts
- Created an admin user logged-in middleware to handle login processes, incorporating JWT authentication
- Wrote SQL migration scripts to modify tables in the database to enable administrator user management

**Workleap** - Software Development Intern

Sep 2022 – Apr 2024

- Created Docker YAML files to establish publisher-subscriber interactions between **four** microservices
- Migrated a monolithic frontend app to micro-frontend while developing interfaces according to Figma specs
- Utilized Azure Event Grid to validate broadcasting of events between services for reliable message distribution
- Achieved a **91% reduction** in P99 query latency by refactoring code to simplify business logic and optimizing indices to align with MongoDB ESR rules
- Collaborated with SRE to architect a backend infrastructure to support a machine learning NLP model
- Revamped legacy code, resulting in a **450% increase** in error budget over a period of two months
- Produced a **25% increase** in client conversion rate by developing experimental features end-to-end as well as conducting A/B testing, unit testing, and integration testing in a SaaS micro-monolith application

**AuraData** - Software Engineering Intern

Jan 2022 – Apr 2022

- Refactored web application using Angular (TypeScript), Bootstrap, HTML/CSS, and .NET Core
- Built REST APIs using Entity Framework (C#) and MS SQL Server that process **10K verifications** monthly
- Integrated Bambora's Payment SDK to allow **11K subscribers** to store card profiles and make payments
- Designed relational data models to efficiently process over **600 monthly financial transactions**, optimizing scalability in accounting and tax management systems

**PHSA** - Software Development Intern

May 2021 – Aug 2021

- Developed a .NET Core web application for BC healthcare that supports over **500 capital projects**
- Led design and development of wiki page using C#, jQuery, JavaScript, Blazor, and Microsoft SQL Server
- Architected a role-based access security layer to allow permitted users to edit sensitive healthcare data
- Implemented audit functionality to track vital information about the maintenance of **3,000 servers**

## PROJECTS

**IMC Prosperity 2** - Python, Pandas, NumPy, QuantLib

Apr 2024 – May 2024

- Placed **8<sup>th</sup>** in Canada and **top 2%** globally in IMC's International Quantitative Trading Competition
- Implemented ETF arbitrage and mean reversion algorithms to exploit price differences in the depth of market
- Leveraged game theory and economic principles to maximize revenue during manual trading rounds

## SKILLS

Languages: Java, C++, Python, JavaScript, SQL, HTML/CSS, Unix

Technologies: Docker, Kubernetes, ReactJS, Amazon Web Services, .NET, Git, MongoDB, Azure DevOps

Courses: Data Structures and Algorithms, Databases, Networking, Design Patterns, Artificial Intelligence