

B. Tobias Wahyudi

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EDUCATION

University of Waterloo

Honours Bachelor's of Computer Science, Co-op, Combinatorics Minor

Waterloo, Canada

September 2018 - August 2023

- Cumulative Faculty GPA: 85% (Distinction)
- Courses: OOP, Algorithms, Data Structures, Concurrency, AI, Venture Creation, Real-Time Programming, Security

WORK EXPERIENCE

Splunk Inc. | Back-end Software Engineer Intern

Go, GORM, Docker, Bazel, Kind, Testify, Gomock

San Jose, California

September 2022 - December 2022

- Implemented Cross-API Pagination for a Golang File Storage microservice, providing better support for growing file hierarchies.
- Reduced ListFiles API latency by 10x, by batching file authorization calls to external Identity & Access Control services.
- Optimized the File Storage microservice's Garbage Collector, speeding up file deletion operations by over 4x.
- Identified performance bottlenecks via timing tests, resulting in a 50% reduction in 80th percentile API response times.

Layer6 - TD Bank AI Research Division | Full Stack Software Engineer Intern

Elm, Vega, ChartJS, Docker, Elasticsearch, Figma

Toronto, Ontario

January 2022 - April 2022

- Redesigned data flow across TD's model validation dashboard, enabling sharing of complex states through deep linking.
- Rewrote data visualization charts monitoring millions of credit users in Vega, improving rendering performance by **500%**.
- Designed, UX tested, and deployed a dashboard allowing model imports, wireframed in Figma and written in Elm.

SAP | Full-Stack Software Engineer Intern

JavaScript, Sinon, Mocha, QUnit, SAP UI5

Waterloo, Canada

May 2021 - August 2021

- Optimized database caching for SAP HANA's web database interface, reducing memory usage by **30%**.
- Streamlined SQL result set exporting for analytics reports, reducing manual time by **3+ hours** per document.

Manulife Bank of Canada | Software Engineer Intern

Java, Spring, React, Electron, Storybook

Waterloo, Canada

September 2020 - December 2020

- Developed an analytics microservice for Bill Payment Reminders in Spring, serving **10,000+** banking customers.
- Proposed and created testing tools using React, Node, and Electron, speeding up manual testing **by over 200%**.

PROJECTS

unlimited-app.com | Co-founder, Engineering Lead & Product Lead

Figma, React, NextJS, Flask, SQLAlchemy, Serverless, AWS Lambda, AWS S3, AWS Aurora

Remote

March 2021 - September 2022

- Unlimited provides socially impactful design services by connecting young artists with small businesses & growing startups.
- Together with 3 co-founders, led a 10-person team consisting of designers, salespeople, and developers.
- Acquired **over 1000 active users** and **over \$8,000 in revenue** in 18 months.

Embedded Real-time Microkernel and Model Train Control

January - April 2023

- **Embedded real-time microkernel** and program to route model trains on a track, developed for bare-metal Raspberry Pi 4.
- Written and optimized in **C++ and ARM64 assembly**, without external libraries or debuggers.

SKILLS

Languages

C++, JavaScript, TypeScript, Python, Go, SQL

Frameworks

React, Django, Elm, Flask, SQLAlchemy, GORM

Tools & Technologies

Git, Unix, bash, Postgres, Figma, Storybook, Firebase, Serverless, GraphQL, Docker, Kubernetes