Tyler Amirault

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PROFESSIONAL EXPERIENCE

Square   **May 2022 – Present**
Software Engineer Intern | Go, gRPC, MySQL, Swift, Kotlin, Git   Remote, San Francisco

- Completed an engineering design document for implementing a Go microservice with a MySQL backend for sellers to specify custom inventory adjustment types; achieved senior engineering approval for implementation in 50% of the allocated time
- Refactored Square's Inventory Adjustment API to include a report of all stock counts that factored into inventory adjustments in its gRPC response; this feature is currently used by over 10,000 merchants and 16 internal teams.
- Collaboratively engineered a Cash App prototype feature using Swift and Kotlin that enables families to automate chore payments, placing 2nd out of 12 teams in a company-wide hackathon and resulting in adoption by Cash App leadership for implementation

HotTakes Sports   **September 2020 – Present**
Founder, Software Engineer | Flutter, Dart, Firebase, JavaScript, Swift, Sass   London, Canada

- Founded, incorporated, and built a full-stack sports social media app and website using Flutter, Firebase, JavaScript, and Swift
- Achieved over 3,000 downloads, 1,400 daily users, and a 5.0 user rating within two weeks of launching on the iOS App Store
- Redesigned a second version with layered architecture that separates app concerns into data, business logic, infrastructure, and presentation layers using abstraction; implementing this has decreased load times by 76%, API calls by 43%, and UI jitter by 100%
- Created a unit testing suite and integration tests that achieve 86% test coverage and have reduced monthly crashes by 99.8%

Hatch   **May 2021 – September 2021**
Software Engineer Intern | JavaScript, SQL, CSS/HTML, C#, .NET   Missisaauga, Canada

- Engineered an online project data management interface using .NET and SQL that over 260 Hatch engineers use daily
- Independently launched 24 web apps using SQL, C#, and JavaScript that automate repetitive project admin tasks such as file scraping, duplication, precaching, and path validation; these tools save Hatch an estimated 350 engineering hours per year
- Implemented a JavaScript web app to redirect 600 broken project hyperlinks, improving the speed of a database migration by 96%

EDUCATION

Bachelor of Engineering Science, Software Engineering   **Expected April 2024**
Western University | GPA: 3.9/4.0, Dean's Honour List   London, Canada

- MacKay-Lassonde Award in Computer Engineering, selected for leadership and distinguished achievement (2020)
- Coursework: Data Structures and Algorithms, Statistics, Software Design, Calculus II and III, Linear Algebra, Scripting

Bachelor of Arts, Honours Business Administration   **Expected April 2024**
Ivey Business School | GPA: 3.8/4.0, Dean's Honour List   London, Canada

- Coursework: Decision Making with Analytics, Finance, Accounting Fundamentals, Leveraging Information Technology

PROJECTS

Shopify 2022 Backend Challenge (Winner)   **January 2022**
LogistX Inventory Tracker | React, JavaScript, MySQL, Express.js, Node.js, Heroku, Sequelize, Jest   Project | GitHub Link

- Engineered a prototype CRUD API and frontend for inventory management using Heroku, a MySQL database, and Sequelize ORM
- Implemented features beyond challenge requirements including warehousing, location tracking, and unit testing with Jest

Hack Western (2x Winner)   **November 2021**
ShelterFirst | Twilio API, JavaScript, Express.js, Node.js, Firebase, Google Cloud   DevPost Link | GitHub Link

- Built an automated SMS service using Twilio, Express, and Node.js webhooks to match homeless people with available shelters
- Designed a front-end with JS and Firebase for shelters to input bed availability and demographics with a 23 ms first input delay
- Improved a matching algorithm using Google's Maps API to match users with Shelters and provide directions in linear runtime

TECHNOLOGIES AND LANGUAGES

Languages: Go, Kotlin, C#, Python, Java, JavaScript, Dart, HTML/CSS, Swift
Technologies: gRPC, MySQL, Git, Firebase, SQL, Twilio, Google Cloud
Frameworks: React, Flutter, .NET, Sass, Express.js