

ZARWAN HASHEM

🌐 zarwanhashem.com ◊ ✉ hashem.zarwan@gmail.com ◊ 🐙 github.com/Zarwan ◊ 🌐 [in/zarwanhashem](https://in.zarwanhashem)

EDUCATION

University of Waterloo September 2014 - April 2019
Bachelor of Applied Science in Honours Computer Engineering, Co-op GPA 3.7
With Distinction - Dean's Honours List

EXPERIENCE

Jane Street Capital September 2018 - December 2018
Software Developer Intern - Market Data, Core Services *New York City, NY*

- Developed a selective email rate limiter using OCaml that detected and rate limited low-priority emails
- Heavily redesigned and refactored a core internal system, simplifying future updates and expansions
- Created a command-line tool to heuristically select and fuzzy-search a representative set of securities

LinkedIn January 2018 - April 2018
Software Engineering Intern - Content Analytics *San Francisco, CA*

- Developed systems to find data anomalies in batch and stream processing systems using Pig and Python
- Conducted research and implemented changes in various MapReduce jobs to optimize performance
- Implemented a system to increase analytics retention by over 12x by introducing a new roll-up flow that minimizes storage costs using Hadoop, Samza, and Kafka

Microsoft May 2017 - August 2017
Software Engineering Intern - Office 365 *Mountain View, CA*

- Authored a design document outlining infrastructure changes for the RESTful backend of a new product
- Implemented a data abstraction layer in C# that allows storing data on multiple database backends
- Researched the limitations of multiple NoSQL database services and built serializers to handle variances

Shopify September 2016 - December 2016
Developer Intern - Mobile Shopify *Ottawa, ON*

- Expanded a data-fetching and caching framework for Android to support errors and retries using Java
- Optimized token storage by adding invalidation in an internal GraphQL API using Ruby on Rails

Shopify January 2016 - April 2016
Developer Intern - Mobile Shopify *Ottawa, ON*

- Improved an algorithm to heuristically extract prominent colours from images and apply them to views

Guidewire Software May 2015 - August 2015
Developer Intern - Internal Tools *Mississauga, ON*

- Developed an IntelliJ plugin to support Grill, an internal programming language written in ANTLR4

PROJECTS

StockOverflow (Android, Node.js) devpost.com/software/stock-overflow

- Developed a stock prediction algorithm that applies sentiment analysis to article headlines

SKILLS

- Experience in Java, C#, and OCaml, familiar with Python, C, C++, Go, Ruby (on Rails)
- Hadoop (MapReduce), Pig, Kafka, Samza, Android, Git, Mercurial, SVN, GraphQL, rest.li, UNIX
- HDFS, Pinot, MySQL, DocumentDB (Azure Cosmos DB)