

Yash Mathur

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Education

University of Waterloo

Honours Bachelor of Computer Science Co-op

Waterloo, ON

Sep 2016 - May 2021 (Expected)

- **Relevant Coursework:** *Machine Learning, Operating Systems, Data Structures, Algorithms, Compilers, Databases, Graph Theory*

Work Experience

Grand Rounds

Software Engineering Intern

San Francisco, CA

Jan 2019 - Apr 2019

- Built a service mesh layer in the **Kubernetes** cluster using **Istio** and **Envoy** to implement a **canary deployment system** for faster A/B testing and instant changes to **traffic routing**
- Proposed and built a CLI tool in **Go** to unify developer workflows across all projects that **improved developer productivity** by reducing time to setup dependencies from 7s to under 1s (**85% improvement**)
- Extended the provider search algorithm to be more flexible, enabling users to prioritise high text match scores, leading to a **13% increase** in scheduled doctor appointments through the app
- Created a **GraphQL API** to surface processed medical claims data to display users' medical expense history

Shopify

Software Developer Intern

Toronto, ON

Jan 2018 - Apr 2018

- Developed a comprehensive system to detect and ban fraudulent listings, **reducing fraudulent activity by over 25%** on the marketplace
- Improved the homepage's average response time by **1.7s (90%)** by **reducing the number of queries by 4x** and **eliminating all nested joins** in the queries
- Contributed to streamlining metrics intake by implementing a **real-time Kafka pipeline** for collecting analytics datapoints
- Added **stemming to Elasticsearch** for text based search, improving listing discovery by 7%

Shopify

Software Developer Intern

Toronto, ON

May 2017 - Aug 2017

- Independently built **filtering and sorting** for listings using **Elasticsearch**, improving time to contact sellers by **65%**
- Designed and developed an **email webhook** to mask buyer and seller email addresses, **reducing spam and fraudulent messages** on the marketplace
- Built a feature to flag and report fraudulent users on the marketplace helping **identify potential scammers**

Skills

Languages: Go, C++, Ruby, Javascript, Python, Java, TypeScript
Technologies: Kubernetes, Istio, Envoy, React, Kafka, Elasticsearch, GraphQL, Rails
Tools: Git, Docker, Linux Kernel, AWS

Projects

Spingroup Go

- Built a Go package to run multiple tasks concurrently and display their progress on the terminal

Handwriting Generator *Typescript*

- Built a web app that converts text to the user's handwriting by interpolating data points using cubic splines

Donopoly Meal *Ruby on Rails, React, GraphQL*

- Developed a highly customizable online multi-player card game

Awards

Google Games

Competed against teams from Canadian universities to solve algorithmic challenges

1st Place

Apr 2017

Code Voyage

Competed against over 3,000 students in the competitive programming competition

3rd Place

May 2016