

Jayant Shrivastava

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Education

BASc in Computer Engineering
University of Waterloo
2017 - 2022
With Distinction &
Dean's Honors List

Skills

Languages

Python • Go • Rust • Java
C++ • SQL • JavaScript

Tools/Frameworks

Kafka • Spark • MapReduce
Hadoop • Thrift • gRPC • React
Airflow • Docker • Git

Community & Awards

Hack the North • 2021

Leading an Intro to APIs
workshop at Canada's biggest
Hackathon w/ **3000+**
attendees

Tech+ UW • 2020

Mentoring students and helping
build a more diverse & inclusive
tech community at UW

UWBlueprint • 2019

Developed apps for NPOs in
support of children's education,
civil rights, and sustainability

16 Weeks • 2019

Created videos for a YouTube
channel with **700+ subscribers**
to provide internship insights

Delta Hacks • 2018

Won a **\$1200**-valued prize out
of 76 teams for making an app
to get emergency medical info

Projects

Buoy (Go) • [link](#)

Built a distributed key-value
store backed by Raft, tolerant of
node failures & partitions

Groupchat (Go, Docker) • [link](#)

Developed a real-time chat
messenger server and client

Interests

Basketball • Piano
Snowboarding • Fitness

Experience



Facebook

Software Engineering Intern

[Sept. 2021, Dec. 2021]

Improved the upper bound latency of a large distributed job from **4h to 40 mins** by reducing memory allocations, adding multithreading, and optimizing RPCs in Python

Implemented a caching library using external storage and launched it to production with **>95% test coverage** facing a peak daily throughput of **>400 QPS**

Improved the P99 latency of a job that compiles **3000+ ML features daily** by **30% (80 mins -> 56 mins)** by designing and integrating a cache system in Python

Leveraged compiler optimization techniques to reduce the local compile time of a single item by up to **70%**, saving several minutes for end users



Cockroach Labs

Software Engineering Intern

[Sept. 2020, Dec. 2020]

Contributed new SQL features such as database prefixes to CockroachDB, a distributed, open-source database used by **400+ companies in 1100+ global clusters**

Improved SQL sequences to be **83% faster** and use **67% less memory** by implementing the SQL sequence "cache" operator using Go

Increased database schema test coverage by extending a random SQL generator to create and verify schema changes in Go



Shopify

Backend Engineering Intern

[Jan 2020, Apr. 2020]

Developed backend services to actively record statistics from **300,000+ daily advertisements** using Ruby & Kafka events

Built a scalable, offline-first data exporting feature for ad metrics facing **500+ users** using Rails & GCP storage

Implemented and deployed IP throttling features in Ruby to significantly reduce bot traffic and fraudulent clicks on ads

Integrated a new type checking framework into a large ads infrastructure project built with Rails - featured on engineering blog



LCBO

Software Engineering Intern

[May 2019, Aug. 2019]

Reduced page load time of a production app by **>50%** by implementing a client-side cache using a JavaScript serviceworker

Worked on a serverless Node.js ETL pipeline to parse and index **1000+ spreadsheets** into MongoDB & Elasticsearch



Bonfire Interactive

Software Engineering Intern

[Sept. 2018, Dec. 2018]

Built Go microservices to perform virus scans on **100% of user files** uploaded to Amazon S3 to improve download security

Reduced quarterly support ticket load by **>350** tickets by automating issue detection and resolution using Python & Airflow