

JUSTIN BORRROMEO

justborromeo@gmail.com

github.com/justinborromeo | (647) 460-0061

Education

University of Waterloo, B.A.Sc in Honours Mechatronics Engineering w/ Option in AI

cGPA: 87%

Arthur F. Church Entrance Scholarship, UW President's Scholarship, Professional Engineers Ontario Scholarship, Wells Fargo Scholarship

Work Experience

Glean, Software Engineer [Search Platform] · *Go, React (Typescript), Python, Java*

March 2022 - Present

- Currently building out an evaluation tool to quantify the impact of changes in ranking algorithm.

Google, Software Engineer [Web Data EngProd] · *C++, Go, Python*

May 2021 – March 2022

- Built release qualification and test infrastructure, and developer tooling for Google's core data acquisition, indexing, and semantic understanding teams.

Google, Software Engineering Intern [SQL Pipelines] · *C++, Java, TypeScript (Angular)*

May – Sept 2020

- Built out frontend components, and architected and implemented data ingestion for a unified platform to monitor and debug Google's data pipeline systems.

Google, Software Engineering Intern [Anti-Malvertising] · *C++, Java, SQL*

Sept – Dec 2019

- Developed and deployed a data pipeline and gRPC service to fingerprint webpage technologies and proactively detect security vulnerabilities in ads' landing pages.
- Implemented aggregation pipelines to evaluate the financial impact of blacklisting advertiser IPs.

Imply, Database and Distributed Systems Engineering Intern · *Java, SQL*

Jan – Apr 2019

- Contributed [~20 features and patches](#) to the open-source Apache Druid database, including time-based ordering for streaming SELECT queries, Kinesis de-aggregation, and ingestion monitoring

Toast, Software Engineering Intern [Payments Core] · *Java, SQL*

May – Aug 2018

- Built infrastructure and services for credit card payment processing.
- Developed tooling for identifying data synchronization issues.

Lytix, Software Engineering Intern · *ASP.NET (C#), JavaScript (Node, JQuery)*

Jan – Apr, Aug – Dec 2017

- Implemented JWT authorization for Lytx Video Services' web application and RESTful API.
- Built a proof-of-concept web app that supports low-latency exploration of TBs of geospatial vehicle data.

Research

UWaterloo Data Systems Group [Prof. Jimmy Lin] · *Python, PyTorch*

Sept 2020 – May 2021

- Led work on scientific question answering using T5 re-rankers; placed first in the consumer track of the [Epidemic Question Answering](#) challenge + presented system at the [2020 Text Analysis Conference Workshop](#).

Waterloo Configurable Architectures Group [Prof. Nachiket Kapre] · *Python, R*

Sept 2020 – Apr 2021

- Co-developed workflow that partitions systolic arrays to accelerate CNN inference on FPGAs.

UWaterloo, Undergraduate Research Assistant [Prof. S. M. Zahedi] · *C, Python, PyTorch*

Jan – Apr 2020

- Investigated using reinforcement learning and autoencoders with hardware-level metrics to tune resource allocation for collocated datacenter workloads.