

Mohammed Bilal Akhtar



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Interests

Databases

Distributed systems

Backend web development

Cloud computing

Biking

Technologies

Python

Go

Ruby

JavaScript / Node.js

Java

HTML / CSS

C / C++

Scala

AWS

Linux / Unix

SQL

iOS (Swift)

Work Experience

Cockroach Labs, Backend Engineering Intern

05/2017 – 08/2017

New York City

- Added the ability to inspect ongoing client sessions across clusters running CockroachDB, a distributed SQL database
- Designed and implemented a mechanism to cancel queries in-flight, including queries with a multi-node workload
- Wrote Request-for-Comments documents to achieve consensus on project specifics before beginning implementation

Amazon, Software Developer Intern

09/2016 – 12/2016

Toronto

- Worked on Java microservices responsible for selecting destination warehouses for goods sent by third-party sellers
- Set up AWS SNS, Lambda, and Kinesis streams to efficiently move incoming audit data to DynamoDB and Redshift at scale
- Architected and built an internal website using Flask and Backbone to investigate placement decisions, which reduced on-call workload

PagerDuty, Application Developer

01/2016 – 04/2016

Toronto

- Optimized notification generation in Scala microservices for large bursts of incidents, increasing incident-handling capacity by 10x
- Executed long-running database migrations directly in production while preserving availability
- Implemented direct incident assignment and incident grouping features in the Rails web app

Polar, Full-stack Developer

05/2015 – 08/2015

Toronto

- Unified sign-in and user account storage across Polar's Django web apps to improve user experience
- Implemented a new click tracking flow on client websites – involved updating browser scripts, rest APIs and an iOS library

Activities

- Ran a SQL workshop with ~150 participants
- Organized Tech Retreat, a hackathon for high school students
- Active student senator in the University senate

Education

University of Waterloo,

09/2014 – 06/2019

Bachelor of Software Engineering (co-op)

- 3.95 GPA (Dean's Honours List recipient)