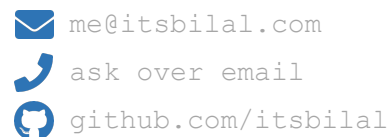


Mohammed Bilal Akhtar

Technical skills



Areas of interest: Distributed Systems, Data Stores, Backend Development, Linux/Unix, SRE

Languages: Python, Erlang, Go, JavaScript, Java, Ruby, C, C++, Scala

Technologies: SQL, AWS, Bash, Git, Node.js, React, Thrift, gRPC

Experience

Software Engineer Intern at Facebook (WhatsApp), Menlo Park, CA 01/2018 – 04/2018

- Designed and implemented a new Erlang microservice for logging client requests, increasing request logging capacity by 16 times compared to previous setup
- Calculated required capacity and migrated an existing chat service to Facebook's container infrastructure and new key-value store, while being on-call and maintaining availability

Backend Engineering Intern at Cockroach Labs, New York, NY 04/2017 – 08/2017

- Implemented new query cancellation and monitoring SQL statements in CockroachDB, along with cancellation mechanisms for both single-node and distributed queries
- Wrote RFC design documents and achieved consensus before starting implementation

Software Developer Intern at Amazon, Toronto, ON 09/2016 – 12/2016

- Built a pipeline to move shipment planning audit data to AWS DynamoDB and Redshift at scale using SNS, Lambda, and Kinesis streams, from a Java service
- Made an internal website using Backbone and Flask to surface audit data and answer exactly where inbound packages are being sent, and what part of the system made that decision

Backend Services Intern at PagerDuty, Toronto, ON 01/2016 – 04/2016

- Optimized notification composing and batching for alert-heavy users, increasing peak incident handling and notification sending capacity by at least 10x
- Added incident grouping features to the Ruby web app, and executed related long-running MySQL migrations on core incident tables without any downtime

Activities

- Ran beginner-oriented workshops and mentored first years on Ruby, Rails, and SQL
- Served as Research Assistant on projects in operating systems and programming languages
- Active University senator, leading initiatives on mental health and academic program changes

Education

Bachelor of Software Engineering at the University of Waterloo 09/2014 – 06/2019

CGPA: 3.95 (Dean's Honours List recipient)