Mohammed **Bilal** Akhtar
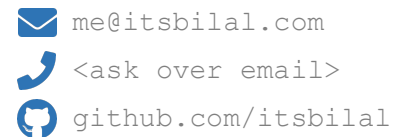
✉ me@itsbilal.com
📞 <ask over email>
⬛ github.com/itsbilal

Technical skills

Areas of interest: Distributed Systems, Data Stores, Backend Development, Linux/Unix
Languages: Python, Erlang, Go, JavaScript, Java, Ruby, C, C++, Scala
Technologies: Git, Node.js, SQL, AWS, 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 capacity numbers 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

- Build 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
- Helped organize Tech Retreat, a hackathon in Waterloo for high school students
- Active University senator, leading initiatives on mental health and academic program changes

Education

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

CGPA: 3.95 (Dean's Honours List recipient), Degree: Bachelor of Software Engineering (BSE)