Rafit Jamil

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Skills

Languages | C++, Python, Java, JavaScript, TypeScript, Golang, SQL, HTML/CSS

Technologies | Node.js, Spring Boot, React, Django, Flask, AWS, MongoDB, Redis, Neo4j, GraphQL, Docker, Git

Education

University of Waterloo | Bachelor of Software Engineering (B.SE)   September 2018 – April 2023

Work Experience

Software Engineering Intern | **Google**   May 2022 – September 2022
New York, NY
- Improved Bigtable operation predictability with priority locking system for concurrent workflows in C++.
- Upgraded API rate-limiting with custom zones to reach 99.3% quota usage and cut support tickets by 42%.
- Released highly requested cross-project features and testing infrastructure for Bigtable Java Client.

Software Engineering Intern | **Facebook (Meta)**   January 2022 – April 2022
Menlo Park, CA (Remote)
- Developed Vulkan-based real-time ray-tracing module in C++ and Python for rendering Codec Avatars.
- Outperformed prior ambient occlusion algorithms by 32% with improved quality and device compatibility.
- Supported key ML applications with GPU acceleration and TorchScript interop using CUDA and PyTorch.

Software Engineering Intern | **Google**   October 2021 – January 2022
Mountain View, CA (Remote)
- Built ML-based parameter optimization library for Core Data processing with C++, Spanner and TensorFlow.
- Cut data refresh speeds by 26% using new library's suggestions for parallelism and batch size parameters.
- Engineered thread-safe monitoring to log 9000+ parameter suggestion metrics from all concurrent workers.

Software Engineering Intern | **Amazon**   July 2021 – October 2021
Vancouver, BC (Remote)
- Architected real-time data streaming and analytics platform for Amazon Jobs using Java, Node and AWS.
- Deployed cloud-pipeline to filter and stream 125,000+ job events via Dynamo DB, Kinesis, S3 and Redshift.
- Empowered team with QuickSight-Redshift query tool; slashing data access time from 48 hours to 3 minutes.

Software Engineering Intern | **Salesforce (Slack)**   May 2021 – July 2021
San Francisco, CA (Remote)
- Led Slack-first Salesforce mission, building renderers and data providers in Spring for Slack App Framework.
- Scaled metrics API to support custom telemetry, report 520 hours of server health and integrate with Kafka.
- Supported more complex Slack apps with chainable actions and programmable third-party integrations.

Software Engineering Intern | **Lumafield**   July 2020 – December 2020
San Francisco, CA (Remote)
- Spearheaded development and 67% adoption of flagship defect analysis software made in Python and React.
- Generated 6 TB of scan data with synthetic, cloud ETL data-pipeline built with OpenCV, SQL, RDS and S3.
- Developed CAD compare and 3D-measurement tools on web-app with TS-React, VTK, Three.js and Firebase.