# Sadlil Rhythom

Senior Software Engineer, Tech Lead, Google.

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#### **Experiences**

# Senior Software Engineer - Cloud Reliability

Google

May 2025 - Present Dublin, Ireland.

Dedicated to enhancing the safety and reliability of Google Cloud Platform, ensuring we meet and exceed the promises made to the customers. A key focus of my work has been contributing to the Customer Risk aware rollouts initiative. This project improves GCP service resilience based on customer risk profiles, significantly mitigating the blast radius of potential outages. The project ensures that changes are deployed in a controlled manner, from risk-tolerant to risk-averse customers, contributing to a more stable and reliable cloud environment.

#### Senior Software Engineer, Tech Lead - Enterprise Networking Google

March 2023 - Present

Dublin, Ireland.

Leading the Software and automation echo-system to ensure Security, Safety and Compliance of Google's Planet Scale Network.

- Building a Chaos engineering platform for Planet Scale Enterprise Network.
- Spearheaded the design and implementation of a continuous software testing infrastructure for SDN Control plane tools, encompassing both hermetic and real physical environments. This initiative standardized software testing, qualification and release practices across the organization. Additionally, automated testing was integrated into the software release and os qualification gating process, ensuring quality throughout the feature delivery cycle, improving the NPS score by 30% for overall software platform.

#### Software Engineer, Tech Lead - Enterprise Networking Google

April 2022 - Feb 2023

Dublin, Ireland.

Software Engineer and Tech Lead at Google Enterprise Networking. Engaged in building software echo-system to power the design, deployment, monitoring, and operation of Google Enterprise Network.

- Led and designed a multi-quarter project implementing a software infrastructure to automate network state compliance verification. This project significantly reduced manual intervention and accelerated the network deployment pipeline by 20%. Key activities included conducting comprehensive requirement and gap analyses, identifying components for new development vs reuse, and establishing architectural principles focused on maximizing quality with limited resources.
- Designed and built a proof-of-concept Network Delivery Orchestration platform, capable of guiding human operators with precise instructions to construct physical networks, ensuring predictable and consistent deployments.
- Led a team of 6 engineers, driving roadmap execution and managing OKRs deliverables to ensure timely and successful project completion.
- Mentored 5 engineers in their career development, resolving technical challenges and removing obstacles to help them navigating the ambiguities within their roles.

# Software Engineer, Site Reliability Engineering

Jan 2020 - April 2022

Google

Dublin, Ireland.

Zero-Trust Boundaries SRE, upholding Google's Authentication and Authorization infrastructure and realizing the Zero Trust BeyondCorp vision for enterprise and cloud users with an unwavering commitment to reliability.

- Owned and led the development of Software Infrastructure to empower Googlers to use non-web applications seamlessly with the BeyondCorp Zero Trust security model.
- Designed and migrated a ICE based Internal proxy service to WebSocket, enhancing service reliability by 70% in home ISP.
- Implemented auto-scaling for BeyondCorp infrastructure to meet the growing demand for remote access to Google's enterprise
- Designed an automated certificate renewal system for a fleet of 100+ machines in DMZ, saving 240+ SRE hours annually.
- Designed a continuous metric collection Infrastructre for CLI based tools, providing valuable insights into user behavior and system performance.
- Contributed to the kubernetes/minikube core team as a Community contributor.

# Site Reliability Engineer

Booking.com

Jul 2019 - Dec 2019

Amsterdam, Netherlands

Site Reliability Engineer (SRE) focused on Core Infrastructure of Booking.com.

- Managed on-premises and cloud Kubernetes environments through Infrastructure as Code. Performed root cause analysis and implemented preventative measures for Issues seen on the Kubernetes based Continuous Deployment Pipeline.
- Designed an automation platform for data center rack maintenance for Kubernetes nodes, reducing risk of unplanned workload
- Maintained core monitoring systems using Prometheus, Grafana.

# Senior Software Engineer, Backend

Grab

Nov 2017 – Jun 2019 Signapore

Software Engineer for the Grab Supply Shaping team.

- Developed and implemented microservices to accommodate over 10 million requests daily, enhancing Grab's Supply Shaping
  Infrastructure. Overhauled the Incentives management infrastructure to incorporate point-based real-time updates, resulting in
  a 20% increase in driver partner adoption.
- Acted as the SRE liaison, ensuring the reliability of the team's cloud infrastructure. Engaged in the OnCall rotation and Engineering Postmortems process to uphold the systems' high availability and scalability.
- Led a team of two in designing and executing a real-time event processing pipeline capable of handling 15 million events daily.

Software Engineer

AppsCode

Pathao Ltd

Apr 2015 - Nov 2017

Dhaka, Bangladesh.

Developed tooling to streamline the development, testing, deployment, and monitoring of containerized applications. Contributed to open source projects such as Kubernetes.

- Architect and developed the initial open source version of <u>Voyager</u>, a custom Kubernetes Ingress controller.
- Co-led a team of 4 in designing and implementing multiple Kubernetes operators, including KubeDB and Kubed.

**Engineering Consultant** 

Aug 2017 - Oct 2017

Dhaka, Bangladesh

Kubernetes and Google Cloud Infrastructure Consultant.

**Jr. Software Engineer**Bit Mascot Pvt Ltd

Nov 2014 - Mar 2015

Dhaka, Bangladesh

Backend Developer - Implemented product search and comparison functionalities for e-commerce platform. Developed a SQL library to reduce query complexities, improved query execution speed by 16%.

#### Education

## Mawlana Bhashani Science and Technology University

2011 - 2014

Dhaka, Bangladesh

BSc in Information and Communication Technology

#### Skills

Go, C++, Python, gRPC, Protocol Buffer, Microservices, REST

Docker, Kubernetes, GCP, AWS, Jenkins, Puppet, Promethus, Grafana, Loki ElasticSearch, MySQL, PostgreSQL, Presto, Kafka, SQS, RabbitMQ, Neo4i Technical Leadership, Mentoring, Software Architecture, Software Design, Software Defined Networking

#### About Me

# Life Philosophy

I don't Believe in Magic. Know <u>why</u>.

# Personality Commander (ENTJ-A).

Commanders are bold, imaginative, and strong-willed, always finding a way – or making one.

## Competitive Programming

2025

Participated in 5 ICPC Dhaka Regional and 4 NCPC. Runner up in 2015 IEEE RUET IUPC.

## Open Source

Actively engage with and contribute to the open-source community. This resume is built with open source <a href="https://rxresu.me">https://rxresu.me</a>.

## **Kubernetes Contributor**

Contributor of Kubernetes. Contributor Card. Minikube core team member as Google 20% Contributor.

2024

# Find Me Online

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Me @sadlil

#### **Recent Projects**

#### **Customer Aware Rollouts**

Enhancing GCP Service Reliability

Lead the Customer Aware Rollouts initiative, a key Google Cloud Platform (GCP) reliability program designed to mitigate the blast radius of outages.

- Improved the resilience of critical GCP services by defining customer risk profiles (from risk-tolerant to risk-averse).
- Enabled progressive rollout strategies for binaries and configurations, ensuring changes are first deployed to lower-risk partitions before affecting risk-averse customers.
- Impact: Reduced the risk of global outages, allowing for safer change management and upholding GCP's reliability promises.

#### **BCT Automation**

Chaos Engineering for Network Devices

- Led the Delivery of a Chaos Engineering system to automate Business Continuity Testing (BCT) for Google's Enterprise Network (GEN), simulating network failures to test resilience.
- The system injects controlled failures (e.g., device reboots, link shutdowns) and performs automated validations (routing, connectivity, failover time) before and after, driven by flexible policies.
- Impact: Significantly reduced testing time (>8 hours saved per site), eliminated thousands of hours of annual manual toil, improved network reliability.