

Danish Rehman

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Professional Experience

Staff Software Engineer, Attentive (sms + email marketing SaaS)

San Francisco, CA

Automated Messaging Team — *Python, Java, Pulsar, PostgreSQL, DynamoDB, Temporal*

2024 – present

- Led a **0→1 org-wide** effort across **10+ engineers** to build an user intent-based marketing messaging product with LLM personalization, reaching **\$10M ARR** in its first year.
- Spearheaded an org-wide, multi-quarter AI initiative to launch Attentive's first real-time ML serving system for message-level ROI and opt-out prediction, delivering **\$8M+** in projected annual impact.
- Delivered dynamic high-volume coupon generation (up to 1M codes per client), eliminating manual CSV workflows and **saving 100+ client hours/month**, while **partnering with 2+ cross-functional teams** to close a major competitive gap.
- Led a cross-functional initiative **across 4+ teams** to improve system scalability, reliability, and fault tolerance, achieving **99.99% availability**, **supporting 10K QPS**, and scaling to **1.5M messages/day** during a successful BFCM

Staff Software Engineer, Aspire (e-commerce marketing SaaS)

San Francisco, CA

Founding member — *Python, TypeScript, NodeJS, PostgreSQL, Redis*

2018 – 2023

- Joined as the **third founding engineer**; built an **e-commerce marketing platform from 0→1** and scaled (**1→N**) to **\$100M ARR**.
- Architected and implemented a messaging-as-a-service platform supporting multiple brands, processing **1M+ messages/day** with **99.9% reliability**.
- Led a multi-quarter initiative with 10 engineers to build a workflow platform that automated and streamlined campaign operations, enabling **10×** campaign scale and **reducing completion time by 30%**.
- Developed a shared message inbox product across two teams, enabling multi-user management of a common email address and achieving a **50% faster response time**.
- Established an org-wide **observability** culture with Datadog APM and SLOs for mission-critical APIs, reducing P1 bug **resolution time from 10 days to 3 days**.

Senior Software Engineer, Criteo (Adtech platform)

Palo Alto, CA

Adserv Team — *Python, DynamoDB, Cassandra, AWS S3*

2016 – 2018

- Led **2+ teams** across Paris and Palo Alto to plan and execute a 12-month migration of a **100K QPS** system from AWS to proprietary data centers, achieving **\$2M annual cost savings** while maintaining **99.99% availability**.
- Architected and implemented a **high-throughput reporting platform** for time-sensitive data, supporting **40K QPS** with worker-node rollups persisted to Cassandra for downstream reporting.

Software Engineer, BrightRoll / Yahoo (Adtech platform)

San Francisco, CA

User Mapping Team — *C, Aerospike*

2015 – 2016

- Engineered an in-memory, **lock-free data structure** (URCU) for user mapping, aligning identifiers across platforms and **reducing datastore load by 500%**.
- Designed and implemented a **cookie-matching server** to synchronize user identifiers across ad platforms, handling **60K QPS** and improving targeting efficiency, contributing to an annual **revenue increase of \$6M**.
- Designed a modular **rate-limiting system** using the token bucket algorithm, enabling granular per-partner, per-thread control and **sustaining 10K QPS**.

Software Engineer, Goibibo (Online Travel Booking Platform)

Bangalore, India

Optimization Team — *Python, Memcached, PostgreSQL*

2010 – 2013

- Engineered an **adaptive expiry algorithm for Memcached**, improving cache efficiency and increasing **hit rate from 28% to 58%**.
- Integrated **PyBloomFilter** to optimize API interactions with external vendors, **reducing outbound API calls by 50%**.

Talks I Have Given

Date	Conference	Talk Title	Recording
Oct 2025	Heapcon (Belgrade, Serbia)	<i>Deprecating Distributed Lock using Apache Pulsar</i>	
July 2025	Data Streaming Summit (Online)	<i>Deprecating Distributed Lock using Apache Pulsar</i>	
Sept 2025	P99 Conference (Online)	<i>Deprecating Distributed Lock using Apache Pulsar</i>	

Programming Languages, Frameworks and Tools

Programming Languages: Python, Java, NodeJS, C, TypeScript, React

Databases: PostgreSQL, Redis, DynamoDB, Google Cloud Tasks, Google Datastore

Streaming store: Apache Pulsar, Google Pub/Sub

Workflow store: Temporal

Data warehouse: Snowflake

Cloud platforms: GCP, AWS

Education

Masters in Computer Science University of Southern California, USA	2013 – 2015
B. Tech in Information Technology NIT Allahabad, Allahabad, India	2005 – 2009