ROHAN DOSHI

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EDUCATION _

Pune Institute of Computer Technology, B.E in Computer Engineering

July 2020 - May 2024

• CGPA 9.48/10.0

July 2018 - June 2020

Dr. Kalmadi Shamarao Junior College, class XII

• Percent 93.54%

SKILLS_

Languages & Technologies Databases & Cloud Course Work ${\it Javascript, Golang, Java, Python, C++, Node.js, Flutter, RabbitMQ, Kafka, Docker}$

Postgres, MongoDB, Firebase, ScyllaDB, SQL, AWS

Distributed Systems, Computer Networks, Databases, Information Retrieval Systems

EXPERIENCE

Intangles, *Software Application Engineer* | (Pune, India)

July 2024 - Present

- Redesigned architecture of S3-triggered Lambdas to SQS consumers on spot instances, saving \$10,000 annually.
- Resolved a core **memory leak** through **heap dump analysis**, reducing memory footprint by **25%** across microservices.
- Engineered a bulk file upload solution, reducing device sync time by 80% for hourly data collection & Architected MQTTS for on-field devices, ensuring private key generation on-device, achieving AIS-189 certification.

Golain, Software Engineering Intern

March 2024 - July 2024

- Integrated WebRTC using the Pion stack in Go, ensuring secure communications via DTLS through mutual TLS (mTLS) certificate exchange within sub 100ms latency .
- Set up Change Data Capture (CDC) using PostgreSQL Write-Ahead Logging (PG-WAL), avoiding the use of triggers and pg_notify, resulting in 20% faster execution.
- Integrated RabbitMQ for asynchronous programming and employed Server-Sent Events (SSE), for real-time visibility of events to users, reducing network-calls by 50%.

Tracelink, Software Engineering Intern

June 2023 - July 2023

- Refined architecture to optimize **SageMaker** overhead by invoking **Lambdas** for parallel processing of smaller chunks, reducing costs by 25%.
- Architected performance dashboard backend to use an in-memory cache, Redis, instead of fetching reports from S3, resulted in saving 3-5 minutes for each report generation call.

Azodha Systems Pvt Ltd, Flutter Developer Intern

November 2022 - May 2023

- Improved the **BLOC pattern** for state management and adopted **Clean Architecture** principles in the development of the **Practice Journal** project, using dependency injection; reducing app boot time by 4secs.
- Integrated **VendorModel** support into the **BLE-Mesh** Flutter plugin using **Event Channels** and **Method Channels**, enabling **Protocol Buffer** for efficient data serialization over **Wi-Fi** and **BLE-Mesh** networks, reducing bandwidth usage by **50**% compared to JSON.

PROJECTS __

Distributed MQTT Broker | Go | Redis | Raft | [Research Paper]

August 2023 – May 2024

- Utlized a gossip protocol-based for Node Discovery and Health Checks, with client state synchronization using ETCD (Raft), ensuring 99% consistency in client-topic mapping across brokers, significantly improving system reliability.
- Developed a custom **load-balancer** for round-robin **TCP packet forwarding**, and utilized **Redis streams** for decoupling broker connections and ensuring **fan-out delivery** with shared memory storage, reducing network chatter by 80%.

Pulzion '22 & '23 WebApp | Flutter | Node.js | PostgreSQL | [Deployment] [Source]

February 2022 – April 2023

- Achieved 3000+ registrations and 400+ PlayStore downloads for the Pulzion '22 & '23 event management app, with seamless integrations of FCM for real-time engagement and RazorPay for secure transactions.
- Optimized web-app performance using **Dependency Injection**, **MVC pattern**, and efficient database interaction with **raw SQL queries** in **PostgreSQL**, which dropped memory utilization by 12%.

Cloud Accounting | Flutter | Node.js | Firebase | PostgreSQL | [Source]

September 2021 – Jan 2022

- Integrated **Firebase** for robust user authentication using **OAuth2 Google Sign-In**, reducing authentication time by 30% and implemented secure file storage, chat, and appointment booking features through cloud storage services.
- Developed resilient APIs using the **Repository Pattern** in **Node.js**, leveraging **TypeScript**, **Prisma (PostgreSQL)**, and **web sockets** for real-time chat and optimized data management, reducing p95 latency by 500ms.

ACHIEVEMENTS _

- Winner at Nice Systems Ltd Project Competition, winning among 40+ Nice interns.
- 2nd Runner Up at PICT InC, Concepts (CN Domain) among 200+ teams, Runner up PICT v/s VIIT Development Battle (Hackathon), Runner Up "Hackspiration" Hackathon conducted by MLSC, VIT.
- Played a key role in developing and launching 4 apps on the Play Store with 1000+ users cumulatively [Link].