Mehul Srivastava

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EDUCATION

The University of Hong Kong

Bachelor of Engineering in Computer Science

Experience

Pok Fu Lam, HK September 2023 - May 2027

May 2024 – Aug 2024

Bonham Road, HK

SWE Intern

Qualify Education Ltd.

- Selected to lead the development team; decided to use microservices architecture using Turborepo.
- Developed high-performant application using TS, Next.js and Firebase, with Redis for cache optimization.
- Utilized Docker to containerize the application for consistent environments and streamlined deployments.
- Deployed containers on AWS EC2 using ECS, implementing auto-scaling policies to enhance scalability.

SWE Intern

usefindr.com

May 2021 – July 2023

- Developed the application using Next.js and Python (FastAPI, for LLM interactions) and Postgres as database.
- Processed search queries in batches with Kafka and Node is consumers, achieving 50% faster throughput.
- Implented IaaC using Terraform to automate deployment of AWS resources, reducing setup time by 30%.
- Utilized Prometheus and Grafana to monitor application performance and infrastructure health.

Director and Member, Web Development

Exun Clan, DPS RK Puram

- Director of India's oldest high school tech club, won 6 hackathons over the span of 2 years.
- Worked on the Exun 2021-22 Registration Platform which was used to register 1.5k+ participants.
- Helped conduct Exun Clan's 26th annual symposium, Exun 2021-22 which had 15k+ participants, 45+ schools from 15+ countries.
- Helped host the Build-A-Thon event during Exun 2021-22. Particularly involed in helping host Girls in Tech events.

Projects

Not Your Average Youtube Clone | Based on system design that can scale to 1M+ users

- Built a video transcoding pipeline for adaptive bitrate streaming using AWS S3, SQS, ECS on Fargate, Lambda
- Developed a comments and like/dislike feature using Kafka for batch processing, inspired by YouTube's approach.
- Used RTMP protocol for live-streaming along with Redis and WebSockets for live chat on stream
- Implemented Jenkins for CI/CD, automating microservice deployments with build triggers and automated testing.

MVPPGuru | Edtech startup with 30k users (span of 3 years) and \$400 MRR

- A total of 30,000 users registered on the platform. Award recipient for social service from the Govt. of India.
- Leveraged Laravel, Intertia, React and Postgres as the tech stack and deployed on dedicated VPS.
- Developed payments flow, authentication, admin panel and easy-to-use student dashboard.
- Recruited and onboarded 3 full-time paid content interns to create study materials and develop questions.

Technical Skills

Core: Typescript, Node.js, Python, C++, Java, SQL, Shell (Scripting), Linux/Unix Devops: Kubernetes, Docker, Terraform, Ansible, Kafka, Jenkins, AWS, Nginx, Github Actions Monitoring & Data: Prometheus, Grafana, ELK stack, Redis, Cassandra, Firebase, Postgres, MySQL, MongoDB

Achievements

Superteam Hackathon (Solana) : Won \$100 for my project So.loval – a web3 based lovalty-centric payments app. Member at SuperteamIN: Recieived \$2500 for a web3 community project; got inducted into Superteam India. Grand Winner, Youth Ideathon: Won \$1200 as the grand winner among 96,000+ participants nationwide (India). HKU iGEM 2024: Accepted as the sole web developer of the team.

HKU ENGG1330 (Python Fundamentals): Was offered the position of a student teaching assistant.

Dec 2023 – Mar 2024

Georgetown, TX

New Delhi, IN