SHYAM ANAND

+46 730740209
mail@shyam-anand.com
Stockholm

I have over 15 years of backend software engineering and architecture experience, and have designed and built horizontally scalable, distributed back-ends on top of RESTful API services, MySQL and NoSQL data-stores, and deployed on AWS. I have led software engineering for two early-stage startups, where I built (or migrated monoliths into) distributed systems.

SKILL SET

Tools, Technologies & Techniques

- Java, Spring Framework
- Python, Typescript
- Kafka, RabbitMQ
- Redis, MySQL, MongoDB, Clickhouse
- Google Spanner, Dremel
- Parquet, Avro, Google Capacitor

- Elasticsearch, Logstash, Kibana
- AWS, GCP, Git, Maven, Jenkins
- Docker, Kubernetes, Terraform
- REST, GraphQL
- Data Pipelines, Micro-services & distributed architecture

Strengths

- Meticulous, yet pragmatic about code standards and quality. I treat tech-debt with priority, and clear them as early as possible.
- Ability to collaborate well with non-technical departments; I have made product & engineering execution plans working with operations & sales teams, while keeping the organisation's mission in focus.
- Have managed tech and product team members of various disciplines; have defined KPIs and competency mapping for performance management & evaluation of developers.
- Attention to detail and good aesthetic sense. I have conceptualised app UI/UX designs using Sketch and have built web UI using ReactJS. The UI I designed for Lookup resulted in improved customer retention and engagement.

EXPERIENCE

Pyyne Digital Sweden Stockholm
Associate Manager from February '24

PROJECTS
Dema April '24 - March '25

- Proposed and implemented new architecture for data ingestion pipelines, which improved data reliability and streamlined customer onboarding.
- Implemented a modular and configurable data ingestion service in Python, enabling the transition from a synchronous ingestion model to an asynchronous ETL pipeline.
- Implemented a data lake on S3 to store both raw and transformed data in Parquet format, enabling efficient querying and supporting downstream analytics and machine learning workflows.
- Built a JSONPath-based transformation engine to support creating custom data mapping schemas for any merchant without additional development effort.
- Achieved up to a 50% reduction in customer onboarding time.
- Improved the development process for integrating external data sources by introducing a reusable framework that simplified the addition of new data connectors and reduced boilerplate code.

Lumos Labs Remote
Freelance Consultant July '23 - January '24

I worked part-time as a tech consultant for Lumos Labs, an early-stage startup in Bangalore. I helped the full-time engineers with software architecture and engineering practices.
- Designed the Lumos Auth module, using OAuth standard, which enabled the existing users on the Lumos platform (Lumos Academy) to login to Lumos Hackathons platform.
- Improved the Lumos platform's (Academy and Hackathons) interoperability by decoupling authentication from the business logic.
- Used Spring Boot to develop the Hackathons platform as an OAuth resource server. Used Spring Data REST to keep the code to a minimum.
- Deployed the stack on AWS. Developed the CI/CD pipeline using GitHub, CodePipeline and Elastic Beanstalk.

CreditVidya Hyderabad
Technical Architect September - October '23

- CreditVidya (now part of CRED) is a microlending platform serving low-income markets, facing challenges with rising traffic and outdated system design.
- The platform used event-driven microservices, but legacy-based configuration management led to frequent runtime bugs.
- Proposed a redesign to isolate configuration management into an independent microservice with RESTful APIs.
- Led the phased migration of configuration data from multiple systems to the new service.
- Authored the proof of concept, including backend code, database schema, and caching strategies.
- Collaborated with the SRE team to redesign the Kubernetes cluster for the new service.
- The redesign eliminated runtime bugs and significantly reduced data redundancy.
- Developed a versatile caching strategy to handle current and future use cases with minimal overhead.

Google Hyderabad
Senior Software Engineer September '21 - May '23

As the tech lead for the Capacity Planning team in Google Cloud Storage, my primary responsibilities include owning and delivering team OKRs, improving team's efficiency, and reducing technical debt.
- Developed Python applications for the workflow that generated resource requirement forecasts for Google Cloud Storage.
- Designed and implemented resilience and fault-tolerance mechanisms for the workflow, which brought down failure rates by 90%. This ensured that a daily output was generated by the system, which allowed the downstream processing to run unhindered.
- Continuing the above, I designed and implemented changes aimed at reducing manual effort involved in processing the output, by adding a second phase to the workflow, which generated a more accurate though less frequent result as a result of additional data validations mechanisms.
- I led the ownership transfer of the codebase and other software assets related to Google Cloud Storage resource planning. This involved extensive planning that covered migrations, testing and roll-back strategies, and collaboration with engineers outside my team (and timezone).
- I organised and led my team in Google Cloud's "Fixit" weeks, where team-members volunteer to focus and work on clearing tech-debt. Me and my team members were awarded peer bonuses for the efforts.
- I identified and logged several tech-debt and refactoring tasks, which were later cleared during Fixit weeks. This significantly improved the overall quality of the team's codebase.

Turvo *(acquired by Lineage Logistics)* Hyderabad
Software Architect Feb '21 - Sep '21

As a Software Architect, my primary responsibilities included improving the software infrastructure in terms of efficiency and reliability, and reducing technical debt.

- Made several system-design contributions to the platform, for both creating new, and improving existing systems.
- Was the go-to person for Redis and caching related topics in the organisation. I collaborated with SREs to improve the platform's Redis deployment on Elasticache, and made contributions that improved the caching system's resilience and availability.
- Reduced API latency by 60% and cut Redis memory usage by over 50% through a redesign of the mission-critical configurations framework. After proactively identifying performance issues with the system, I proposed the redesign to engineering leadership, and implemented it, including a new library for simplified configuration access and modification, eliminating duplicate logic and improving code quality.
- Developed an in-house caching framework using MySQL and Redis that provides APIs through higher-order functions, abstracting away low-level implementation details. This framework greatly reduced the amount of boilerplate code required, and is now widely adopted as the primary caching solution for the platform's services.

Senior Software Engineer Nov '17 - Jan '21

- Before the Software Architect role, I was the lead engineer for the team that built a new generation of features for Turvo, using distributed architectural patterns and strict code quality standards.
- I proposed high level design, and led the implementation of several new services. The systems were designed to be deployed separately from the legacy stack, and followed microservices patterns. I was involved in developing the microservices components, as well as starter code that all services were built on top of.
- I mentored engineers on topics such as software architecture, clean code, etc., and integrated tools such as Google Java Style maven-plugin, Sonar, etc., to the codebase to improve code quality.
- I developed the initial version of Turvo's automated code quality inspection tool using SonarQube, Jenkins and Bitbucket. The tool was designed to be triggered automatically when pull requests are opened, and then perform static code analysis, and post results back to the VCS as inline comments.

Lookup *(acquired by NowFloats)*
VP of Engineering July '15 - July '16

- I proposed, planned and executed the re-architecture of Lookup platform from the initial monolithic stack to a distributed architecture deployed on AWS. The re-architecture eliminated downtimes and scaled the platform to handle more than a hundred thousand concurrent users. The new architecture made use of AWS services such as Application Load Balancers, RDS, Elasticache, managed Elasticsearch, SQS, and Elastic Beanstalk.
- Introduced tools like Git and Jenkins to enable continuous integration and improve development process.
- Built and organised the engineering team; introduced Jira to the organisation, and set up an agile-based engineering process.

Software Architect July '16 - Oct '17

- After Lookup was acquired by NowFloats, I led the team for NowFloats' enterprise conversation platform, ana.chat. I designed and implemented a completely distributed, microservices-based architecture for the platform, that could be deployed both as a standalone single-tenant setup, or a multi-tenant cloud setup on AWS. The cloud setup used CloudFormation to create resources and deploy the application stack. The services were built using Java (Spring Cloud), Python, NodeJS, and Apache Thrift.

- I created a cross-functional team of web, mobile and back-end engineers from within the organisation for the project.

ZipDial *(acquired by Twitter)* Bangalore
Lead Engineer Sep '13 - Jul '15

- At ZipDial, I handled development of voice-based applications using PHP and cloud telephony, which was ZipDial's flagship service.
- I created a bespoke resource monitoring and alerting tool that periodically scraped the cloud telephony platform's web page, generating actionable data. The tool enabled us to proactively take action to prevent downtimes due to capacity issues, resulting in significantly improved SLAs.
- Created a re-usable internal framework for creating cloud telephony based apps, that cut down development times by half.

Innoz Bangalore
Founding Engineer, Software Architect Nov '09 - Aug '13

Innoz was the developer of the award winning SMS based search and answering engine, SMS Gyan, which helped users find information on the Internet via SMS. I joined the company as the first employee while in college and headed software engineering. I was featured on YourStory.com while at Innoz.

- Wrote the source code of SMS Gyan from scratch, using a simple PHP & MySQL stack, which evolved into a distributed, service oriented architecture with services written in Java and PHP, using Memcached, MySQL, MongoDB, and Elasticsearch. The platform handled traffic of more than a million queries per day, and over a hundred million users.
- I designed and implemented the distributed design on AWS, and directly worked on setting up services such as ELBs, RDS, Elasticache, and Elastic Beanstalk.
- Built and organised the engineering team into product development, R&D, platform and support teams, and streamlined the engineering process. Hired engineers and team leads with various skill sets for all teams. Managed and mentored freshers and lateral hires.