

# Shubham Ghadge

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## Education

**California State University, Sacramento**

*Master's in Computer Science*

August 2024 – May 2026

3.45 GPA

**Savitribai Phule Pune University, Pune**

*Bachelor's in Information Technology*

August 2016 – May 2019

3.52 GPA

## Experience

**Software Engineer Intern - Office Of Water Programs | Sacramento, CA**

July 2025 – Current

- Built and maintained the PFAS platform developed using ReactJS, Python, and MySQL, enabling water systems to register and track sampling data for State Water Board compliance.
- Developed backend services in Python for data validation and processing of well sampling submissions.
- Implemented authentication, access control, and data checks to secure sensitive community water data.
- Integrated lab data pipelines and dashboards to reduce reporting delays and improve PFAS result access.
- Worked with engineers and program managers to turn regulatory requirements into scalable features.

**Software Engineer - Great Software Laboratory | GAVS, Pune**

July 2019 – July 2024

- Spearheaded the design and implementation of a scalable, worker-based extractor written in Go, reducing the cloud asset gathering time from 3 hours for 500,000 assets to just 1 hour
- Designed and built a high-performance streaming model to deliver data efficiently to multi-tenant consumers.
- Explored public and private cloud providers to gather asset information and ensure accurate, up-to-date inventory.
- Optimized and improved microservices' performance by 70% through benchmarking, profiling, and debugging.
- Integrated distributed logging, metrics, and tracing for microservices, ensuring better observability.
- Secured API interactions by implementing RBAC and ABAC for granular access control.
- Managed CI/CD pipelines with Helm, and GitHub Actions for smooth and rapid deployments to the K8s Clusters.
- Wrote testable, scalable, and efficient code and participated in code reviews.
- Developed POCs such as Single Sign-On using Hyperledger Fabric for identity management and Distributed Tracing with Jaeger for enhanced observability.
- Contributed to sprint planning and backlog management, ensuring alignment with project goals.
- Collaborated with cross-functional teams to ensure seamless service integration and system communication.
- Developed induction plans and led knowledge transfer sessions to onboard new team members.
- Served on a level-1 interview panel for assessing freshers, contributing to the talent acquisition process.

## Projects

**Current Projects** | *Go, Python, Rust, Ollama, LangChain*

Present

- Building a **local, privacy-preserving context-aware file organizer** using LLMs (Ollama, LangChain, Python) to analyze file contents and auto-classify files without cloud dependencies.
- Developing a **small operating system** in Rust from scratch to explore low-level systems programming.
- Implemented a **Model Context Protocol (MCP)** server in Go to enable structured AI integration within a custom TODO application. Defined resources and created various tools.

**Past Projects – Kyndryl Bridge** | *Go, Kafka, XACML, Docker, Kubernetes, MongoDB*

Jun 2019 – Jul 2024

- Developed **Tag Service** for policy enforcement, remediation, bulk validation, and CLI tooling, integrated via Open Service Broker API.
- Built **Common Inventory** service ingesting 10M+ daily records, with caching, indexing, RBAC/ABAC policies (XACML), and OAuth 2.0 integration.
- Engineered **Common Discovery** extractors processing 500K+ assets/hour, WebSocket fetchers, and Kafka pipelines with n-way sync streaming.

## Publications

- **WEBIST 2025 - Paper #33:** A Long Short-Term Memory (LSTM) Neural Architecture for Presaging Stock Prices.

## Technical Skills

**Proficiency- Technical:** Go(golang), Python, MongoDB, MySQL, Flask, Git, Docker, Kubernetes, GitHub Actions, Helm, Grafana, Prometheus, Linux, Microservices, REST APIs, gRPC, OpenTelemetry, pprof

**Familiar - Technical:** HTML/CSS, JavaScript, TypeScript, ReactJS, Rust, WebSockets, bash ,Kafka, S3, HyperLedger Fabric, Jaeger, OpenStack, RBAC, ABAC, OpenID, AWS, GCP, vSphere, LLMs, RAG, LangChain, MCP