Yash Ashok Dhamecha

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EDUCATION

Master of Science, Computer Science   **August 2023 - May 2025**
Arizona State University | GPA: 3.93/4.0   *Tempe, Arizona, USA*
Honors, Computer Science; Bachelor of Technology, Information Technology   **August 2016 - May 2020**
College Of Engineering, Pune (COEP) | GPA: 8.2/10.0   *Pune, Maharashtra, India*

TECHNICAL SKILLS

Languages	Python, Go, Java, C++
Backend & APIs	OOP, REST, GraphQL, gRPC, Protobuf, TCP/IP, Unix Sockets, Design Patterns
Databases & Messaging	SQL (MySQL, PostgreSQL), NoSQL (MongoDB, Redis), Kafka, RabbitMQ
Cloud & Systems	Linux, Bash, Kubernetes, Docker, Terraform, Helm, Ansible, AWS, GCP, Azure, Distributed Systems
DevOps & Monitoring	Git, GitLab CI/CD, Jenkins, Prometheus, Grafana, ELK Stack
Testing	PyTest, Junit

PROFESSIONAL EXPERIENCE

R&D Software Engineering Intern   **June 2024 – May 2025**
Keysight Technologies   *Tempe, Arizona, USA*
- Reduced backup time by 50% by developing a **Go microservice** with **REST APIs** for Prometheus time-series **data export/import**
- Achieved 0% packet leaks by designing a **Java** socket service integrated with **NGINX** ingress in a 50+ microservice Kubernetes cluster
- Reduced disk usage from 96% to 20% by implementing a **Python microservice** for log rotation, deployed via **Bash** and **Helm charts**
- Ensured near zero packet loss by engineering a **C++ TCP/IP** socket communication layer for **Kubernetes** ingress/egress traffic
- Achieved sub-millisecond distributed processing by building a **Bash systemd service** integrated with **Kafka**
- Reduced release effort by **65%** by automating **Gitlab CI/CD** pipelines using **Docker** for 7+ services

Senior Software Developer   **December 2022 - July 2023**
Barclays   *Pune, Maharashtra, India*
- Led development of a **Python + RabbitMQ** test **automation framework** with **Jira** integration, *reducing* manual testing effort by 80%
- Designed and delivered a **SQL** test data generation service in **Python**, *improving* integration test efficiency for 5+ projects
- Drove cross team adoption of standardized **Jenkins CI/CD** pipelines, *reducing* deployment time by 70% & improving release consistency
- Provisioned **AWS** infrastructure with **Terraform**, **DynamoDB**, and **Redis** caching, improving service delivery speed by **50%**
- Directed a team of **1 intern** and **3 engineers** to deliver a code compliance system and test automation framework, standardizing practices and boosting efficiency

Software Developer   **August 2020 - December 2022**
Barclays   *Pune, Maharashtra, India*
- Reduced production bugs by 67% by developing a **Java** code compliance system that scanned 10k+ scripts against 28 rules
- Cut infrastructure costs by 50% using **Python**, **SQL** & **Bash** by migrating **10+** mainframe apps with multi-million record databases to **Unix**
- Reduced deployment time by 90% by building a **Python** tool to auto generate **SQL DDL** scripts with rollback and GitOps support

Summer Software Intern   **May 2019 - July 2019**
Barclays   *Pune, Maharashtra, India*
- Reduced resolution time by 40% by building a **Django/Vue.js** change management platform with **WebSocket** communication
- Achieved zero unauthorized access incidents by implementing **JWT** authentication with **RBAC** using **FastAPI** and **SQLAlchemy ORM**

PROJECTS

Distributed Banking System | *Python, gRPC, Distributed Systems, Locks*   **Fall 2023**
- Designed an event-driven banking system in **Python** with **gRPC**, **protobuff** and logical clocks, and client-centric consistency models
- Ensured strong data consistency (**99.9%+**) across branches with distributed locking, event ordering, and built in fault tolerance

Caching Layer API | *Node.js, Redis, GraphQL, Python*   **Spring 2024**
- Implemented a backend caching layer with **Redis** to reduce **Python** API response times by **60%**
- Designed GraphQL endpoints for flexible querying, improving developer adoption in test applications

Real-time Web Scraper | *Python, BeautifulSoup, Selenium, Docker, AWS*   **Spring 2024**
- Developed a real time scraper with **BeautifulSoup/Selenium**, Telegram alerts, and **dockerized** deployment on **AWS** EC2
- Achieved **2 second** latency and **99.99%** uptime by scaling with parallel processes and robust session management

Cloud-Native API Platform | *Python, Flask, MySQL, AWS EC2, Docker, Elastic IP*   **Fall 2024**
- Designed and deployed a scalable **Flask REST API** on **AWS** EC2 capable of handling **1000+** requests per second.
- Enhanced availability and fault tolerance with **Elastic IP**s, **containerization**, and **Docker**-based load balancing.

LEADERSHIP & PUBLICATIONS

- Mentored interns and junior developers across projects at Barclays and Keysight, ensuring code quality and knowledge transfer
- Published two research papers on computer vision techniques: "Video Summarization Using Feature Vector Clustering" (ISMAC-CVB 2020) and "Sign Language Conversion Using Hand Gesture Recognition" (INOCON 2023 IEEE)