

Yash Shah

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EDUCATION

California State University, Los Angeles, United States

August 2024 - August 2026

M.S. in Computer Science

CGPA: 4/4

Relevant Coursework: Advanced AI, Advanced Software Engineering, Computer and Network Security

Ganpat University, Gujarat, India

July 2019 - June 2023

B.Tech. in Computer Science & Engineering (Cloud-Based Applications)

CGPA: 8.99/10

Relevant Coursework: Cloud Computing, Machine Learning, Data Mining, Software Engineering

WORK EXPERIENCE

Software Validation and Automation Intern, Zipline, South San Francisco, CA

May 2025 – Aug 2025

HIL Testing, Python, GitHub Actions, Bazel, Jira, Ansible, Slack API

- **Redesigned HIL claim workflow**, unifying allocation logic, syncing Jira labels, and mapping GitHub usernames to emails for auto-assignment; *tested 300+ usernames, validated 50+ Jira issues, and improved tracking of 25+ workflows.*
- **Merged complex pull requests in Bazel-based CI/CD**, analyzing codebases, extending functionality, and ensuring stability through debugging and automated testing.
- **Resolved Hardware-in-the-Loop (HIL) issues daily**, performing triaging of failures, applying automation and Ansible-based deployment fixes, and restoring system health to improve test reliability and minimize downtime across validation environments.
- **Built automation scripts and Slack-integrated dashboards**, streamlining resource allocation, enhancing real-time visibility, and improving operational efficiency.

MLOps Graduate Assistant, California State University, Los Angeles, CA

Sep 2024 - Present

AI-Based Book Recommendation System: AWS, Gemini API, FAISS, Python, Flask, S3, CI/CD

- **Built a Retrieval-Augmented Generation (RAG) pipeline** to process scraped Project Gutenberg data, enabling users to upload books and receive AI-generated summaries and key insights.
- **Developed an asynchronous NLP workflow in Python** for chapter segmentation, named entity recognition, and configurable embeddings, supporting scalable bibliotherapy analysis.
- **Automated pipeline orchestration** with logging, retries, and progress tracking, improving reliability and efficiency of large-scale text processing.

Cloud Data and DevOps Engineer, Squadron Technology, Ahmedabad

Jan 2023 – Jul 2024

CI/CD, Azure DevOps, AWS, Docker, Terraform, Kubernetes, Ansible, Serverless Computing, Python

- **Built and maintained CI/CD pipelines** with Azure DevOps and AWS, streamlining integration, deployment, and version control for scalable applications.
- **Automated infrastructure and deployment workflows** using Terraform, Docker, Kubernetes, and Ansible, improving efficiency, scalability, and system reliability.
- **Developed monitoring and serverless solutions** with Python, PowerShell, and AWS Lambda to enhance visibility, reduce manual intervention, and improve operational performance.

PROJECT WORK

- **Resource Workflow Automation (Aug 2025): Python, GitHub Actions, Jira**
Redesigned HIL claim system by unifying allocation logic, enforcing safeguards, and syncing Jira labels. Built GitHub username-to-email mapping for Jira assignment (**tested 300+ usernames, validated 50+ issues**), strengthening accountability. Replaced SSH with Bazel-based updates and created automation scripts with Slack dashboards to improve monitoring.
- **CI/CD Pipeline Optimization (Jul 2025 – Aug 2025): GitHub Actions, Bazel, Ansible**
Replaced fragile SSH steps with Bazel inside GitHub Actions, reducing failures and accelerating build execution. Merged complex PRs by debugging Bazel tests, adding dependencies, and validating integrations to stabilize pipelines. Applied Ansible fixes for safer deployments, improving reliability of automated builds.
- **AWS Data Pipeline Automation (Jan 2023 – Mar 2023): Step Functions, Snowflake**
Automated the migration of 500GB of data from SQL Server to Snowflake using AWS Step Functions for orchestration, enhancing transfer speed by 20%. Integrated CI/CD pipelines to streamline deployments and improve operational efficiency while applying Agile development principles to reinforce cloud-based data management.
- **SGOR GitLab CI/CD (Mar 2023 - Jun 2023): Azure, GitLab, Jupyter**
Streamlined a SaaS deployment pipeline by implementing GitLab CI/CD practices, effectively reducing deployment time while enhancing system reliability. Integrated this setup with Azure to ensure high availability and minimize downtime, resulting in efficient application deployments and showcasing my passion for creating robust products.

SKILLS

- **Programming Languages & Tools:** Python, Java, C++, JavaScript, Git, GitHub Actions, Bazel, Ansible
- **Technologies:** CI/CD Pipelines, Jira Automation, Hardware-in-the-Loop (HIL) Systems, Slack API Integration, AWS (EC2, S3, Lambda), Azure DevOps, Docker, Kubernetes, Terraform, FAISS, Flask
- **Software Development:** Automation, Testing, Debugging, Validation, Workflow Optimization, Problem-Solving
- **Collaboration:** Worked with cross-functional teams to troubleshoot issues, communicate, and adapt to evolving project needs