

Daksh Gandhi

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SKILLS & INTERESTS

Programming Languages (Python, Go, Bash, C/C++, Java, Javascript) | **Networking and Linux** | **API** (REST API, Postman) | **Python** (Django, Flask) | **DBMS** (SQL, NoSQL, PostgreSQL) | **Automation** (Selenium, PlayWright, Jmeter, Jenkins CI) | **Git** | **Next.js** | **React** | **TypeScript** | **Node.js** | **System Design** | **Distributed Systems** | **AWS** | **Azure** | **Kubernetes** | **Docker** | **Spark**

WORK EXPERIENCE

Microsoft

Software Engineer

Santa Clara, CA

June 2025 - Present

- Developed **OS-level** features in C to support **next-generation Data Processing Unit (DPU)** hardware, offloading storage tasks, and improving the performance and scalability of Azure data center storage systems.

Akamai Technologies

Software Engineer - Intern

Cambridge, MA

May 2024 - August 2024

- Developed a **full-stack** web application with a **React** frontend and **Django** backend to manage XML-based network configuration files, handling over 100,000 servers across Akamai's global delivery network.
- The app replaced manual scripting, leading to a weekly saving of 10+ man-hours and significantly reducing human errors.
- Engineered a distributed system component** using a queue-polling model to automate the distribution of configuration files across the network, ensuring efficient and **reliable file deployment at scale**.

Akamai Technologies

Software Engineer - 2

Bangalore, India

August 2020 - December 2023

- Created a Python library with a "Master Script" that allowed new test cases to be defined via JSON config, eliminating the need to write new code for 90% of future cases.
- Utilized **Azure Pipelines** for **log analysis** to calculate and recommend customer capacity requirements.
- SME** for two products, addressed issues, and provided support to external teams during interoperability testing.
- Achieved an 80% improvement in run time by **optimizing** the existing automation framework to allow splitting regression test suites into smaller, **parallel runs**.
- Led the migration to Jenkins CI automation, eliminating manual effort and **achieving a 99% pass rate**.
- Identified, verified, and automated end-to-end** test cases for new products/features in Python.
- Developed **Selenium UI Automation** testing libraries for the Akamai Customer Portal, saving 8 hours weekly.
- Gained expertise in CDN networking, including TCP/IP, DNS, HTTP/HTTPS, SSL/TLS, **network architecture**, and security.

PROJECTS

SuiteMate: A Roommate Matching and Lease Management System

Full-Stack Developer - Next.js, Flask, MySQL

- Developed a full-stack **Next.js web app** for roommate matching and lease management for both landlords and tenants, with an intuitive and **responsive UI** and a visual dashboard for **analytics**.
- Designed and optimized a MySQL database hosted on Google Cloud Platform (**GCP**), ensuring **scalable architecture**, efficient data storage, and **indexed retrieval**.
- Created **RESTful Flask APIs** for user authentication and property management, ensuring secure, scalable operations.

Software Reproducibility and Dependency Management

Researcher - Docker, Linux

- Tested 40+ software articles by running their Dockerfiles across multiple Ubuntu versions, analyzing semantic version impacts and classifying failures using NLP to pinpoint **dependency errors** (e.g., **16.7% reproducibility drop with Ubuntu 18.04**).
- Built an **automated framework** leveraging LLM to **detect, fix, and retry Dockerfile builds** while evaluating dependency management techniques (**apt-get vs. PIP, Nix, Conda**) to streamline error resolution and reduce manual debugging.

EDUCATION

University of Illinois Urbana-Champaign

Master of Computer Science

Champaign, IL

January 2024 - May 2025

Relevant Coursework: **Cloud Computing Applications, Distributed Systems, Computer Security, Database Systems**

BMS College of Engineering

Bachelor of Engineering in Computer Science & Engineering

Bangalore, India

August 2016 - August 2020