

SUSHANT LOKHANDE

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PROFESSIONAL SUMMARY

Software engineer and recent MS CS graduate with **1+ year of experience** across a product company, research, and academic roles. Experienced in building **scalable backend systems**, **full-stack products**, and **ML workflows**. Now looking for new-grad software engineering roles where I can solve real-world problems and keep growing as an engineer.

EXPERIENCE

San Jose State University | Graduate Research Assistant | San Jose, CA Aug 2025 to May 2026

- Built a containerized autograding service that ran **400+ Java and Python submissions** per cycle in isolated **Docker** sandboxes, parallelizing test execution to cut turnaround **from 6 hours to under 90 minutes**.
- Engineered a reproducible **PyTorch** training pipeline with **GPU acceleration**, automated data preprocessing, and experiment tracking, cutting model iteration time **by 3x**.
- Mentored **250+ students** in data structures, systems, and machine learning through code reviews and debugging sessions.

Turito | Software Engineer | Hyderabad, India Jun 2022 to Oct 2023

- Re-architected live-class event processing from synchronous request handling to an **asynchronous message-queue pipeline** with distributed workers, scaling the system to **2M+ events per day**.
- Cut dashboard load time **from 8 seconds to 1.2 seconds** for **70,000+ users** by adding a distributed cache, tuning **PostgreSQL** indexes, and cutting redundant database round-trips.
- Built **full-stack** adaptive practice features with **React, FastAPI, and PostgreSQL**, serving personalized recommendations from each student's performance in near real time.
- Set up **CI/CD on GitHub Actions** with automated testing to **90% coverage**, cutting deploy time from days to under an hour and catching regressions before release.

Trivia Softwares | Software Engineer Intern | Mumbai, India Nov 2021 to Jan 2022

- Built **Flask REST APIs** serving a healthcare ML inference pipeline over **500,000+ records**, and resolved a serialization mismatch between model outputs and the reporting layer that was corrupting **40% of predictions**.
- Designed **multi-tenant data isolation** with **PostgreSQL row-level security** and automated the preprocessing and validation steps with **Pandas, NumPy, and pytest**.

EDUCATION

San Jose State University | M.S. in Computer Science | GPA 3.8/4.0 Aug 2024 to May 2026

Coursework: Machine Learning, Deep Learning, Advanced Algorithms, Distributed Systems, DBMS, Cloud Computing

University of Mumbai | B.E. in Computer Engineering | GPA 3.9/4.0 Aug 2019 to May 2023

Coursework: OS, Compiler Construction, DSA, OOP, Computer Architecture, Computer Networks, Software Engineering

PROJECTS

Proxima - Vector search engine in C++ | *Python, C++, pybind11, CMake*

- Wrote a vector search engine in **C++**, shipped as a **Python library**, that runs **12,000 searches per second**, about **2x faster than hnswlib and FAISS** at the same accuracy.

Relay - Caching gateway for LLM apps | *Python, FastAPI, asyncio*

- Built a caching gateway for **LLM apps** that served **78% of requests from cache** and cut model costs **by 76%** through provider failover and rate limiting.

Soft Voting for Image-Based Malware Classification | *Python, PyTorch, scikit-learn, OpenCV*

- Classified malware by turning binaries into images and **soft-voting an ensemble** of models, reaching **94% accuracy across 17 families** on **100K+ samples**.

AI Learning Aggregator - Full-stack learning platform | *Python, FastAPI, LangChain, FAISS, OpenAI*

- Shipped a **full-stack learning platform** with course-material scraping, progress tracking, blogging, and a **RAG chatbot** grounded in a vector store.

Graph Connect - Graph-based social platform | *Neo4j, FastAPI, React, TypeScript*

- Built a social network on a **Neo4j graph DB** that recommends connections by traversing **two hops** in a user's connections.

TECHNICAL SKILLS

Languages: Python, C++, Java, TypeScript, JavaScript, SQL, Rust

Tools and Frameworks: FastAPI, Flask, Django, Node.js, React, REST, pytest, JUnit, Locust, Selenium, Hadoop Ecosystem

Databases: PostgreSQL, MySQL, PL/SQL, MongoDB, Neo4j, Hive, HBase

AI and ML: PyTorch, TensorFlow, scikit-learn, Pandas, NumPy, OpenCV, LangChain, RAG, vector search, transfer learning

Cloud and DevOps: AWS, GCP, Docker, Linux, Git, GitHub, CI/CD

RESEARCH AND HONORS

- **Image-Based Techniques and Ensemble Soft Voting for Malware Classification** - June 2026 (under review).
- Received the **Spartan Scholar Scholarship** at San Jose State University in 2025, awarded to the top 3% of the class.
- Presented **Comprehensive Big Data Analytics Dashboard on Chats** at ICICN 2023 in Mumbai, India.