

Shikhar Malik

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Linkedin

Github

Brooklyn, NY

EDUCATION

New York University (NYU)

Master of Science - Computer Science, GPA: 3.85

Brooklyn, NY
Sept 2024 - May 2026

Core Coursework: Deep Learning, Machine Learning, Big Data, Data Science, Data Structures & Algorithms

Management Coursework: Digital Strategy, Healthcare Transformation & Emerging Technologies

Delhi Technological University

Bachelor of Technology - Computer Science

New Delhi, India
Aug 2017 - May 2021

Coursework: Software Engineering, Object Oriented Programming, Database management, Operating Systems

WORK EXPERIENCE

Root Access

Software Engineer Intern

New York City, US
June 2025 - August 2025

- Worked in a fast-paced, pre-seed startup environment, contributing across the full stack (TypeScript, React, FastAPI, AI).
- Implemented secure authentication (OAuth, Auth0) and optimized LLM prompt engineering enhancing the model's code, hardware-specific code generation accuracy and contextual understanding.
- Led development of the company's flagship VS Code-based AI editor, core product contributions directly supported a successful \$2.1M seed funding round.

Optum (United Health Group)

Associate Software Engineer

Gurugram, India
June 2021 - August 2024

- Owned high-volume applications processing over 27 million records each quarter, contributing to a \$7M cost savings in the company's provider paperless initiative in healthcare infrastructure domain.
- Automated critical reports and ETL workflows by developing Python scripts & Java schedulers with MongoDB integration, reducing manual effort, improving processing efficiency and saving the team 15+ hours per week while enhancing operational visibility.
- Resolved a critical memory leak, reducing system restarts from 3+ per day to 0, enhancing processing stability for high-load operations, improving API performance by 100%.
- Migrated critical applications from OpenShift to on-prem Kubernetes, improving system stability from 96% to 99% uptime and implemented CI/CD pipelines using Jenkins, streamlining deployment workflows and automating release processes.
- Served as an SRE and on-call engineer, took full ownership of 50+ end to end production releases ensuring stable deployment for millions of users and handling high priority incidents and war rooms under strict SLAs.
- Received 14+ Bravo Awards and High Flyer Award in 2022 for outstanding contributions to automation, modernization, optimization and leadership.

PROJECTS

Multimodal Offensive Meme dataset for classification of offensive memes

[[Link](#)]

- Created MOM dataset with 1,882 annotated memes covering topics like racism and homophobia for offensive content classification, enhancing model accuracy in detecting hate speech.
- Trained multimodal deep learning models (BERT, BiLSTM, ResNet50, EfficientNet) for offensive meme classification.
- Achieved state-of-the-art performance, improving text classification by 19%, image classification by 175%, and multimodal classification with a 25 percentage point increase in precision using early fusion techniques.

TailWise - Pet Companion

[[Link](#)]

- Developed a pet care web app, enabling food safety checks and AI-assisted diagnosis using ReactJS for frontend and Python with FastAPI for backend.
- Integrated Gemini LLM which provides AI-powered pet food safety recommendations, while overcoming challenges in LLM prompt tuning and multiservice deployment on Vercel.

Skin Cancer Detection Toolkit

[[Link](#)]

- Won 2nd place in the Optum Global Hackathon out of 300+ global teams, developing a full-stack web application for skin cancer detection with real-time image-based predictions using deep learning.
- Built a Flask-based backend pipeline with a DenseNet169 classifier trained on the HAM10000 dataset, achieving 91.2% accuracy. Implemented user authentication system with a SpringBoot microservices and a ReactJS frontend.

SKILLS

- **Development:** Python, Java, C++, HTML, CSS, Typescript, React, Spring Boot, Flask, FastAPI
- **Database:** MongoDB, MySQL, Supabase
- **DevOps & CI/CD:** Docker, Jenkins, Kubernetes, AWS
- **Tools :** Git, Linux, Postman, ServiceNow, Agile
- **Testing & QA:** JUnit, JMeter, SonarQube, CodeQL
- **Machine Learning and AI:** Tensorflow, Pytorch, OpenCV, Scikit-learn, Agentic AI, LLMs