Neelansh Khare

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Professional Summary

Results-driven Software Engineer with expertise in machine learning, data analysis, and full-stack development. Seeking to leverage strong technical skills and research experience to contribute to innovative software solutions in a challenging software engineering role.

Technical Skills

Languages: Python, Java, JavaScript, C++, C, Go, SQL, R

Frameworks/Technologies: React, AWS, TensorFlow, Docker, Git, REST APIs, OpenCV, JUnit, Playwright

Education

University of California - Irvine — Irvine, CA

B.S. Computer Science — *September 2021 - June 2025*

Relevant Coursework: Machine Learning & AI, Data Structures and Algorithms, System Design, Data Management, Compilers, Software Engineering and Testing

Leadership: Software Developer (ICSSC), President (Indian Subcontinental Club), Google Developer Student Club, Data and Analytics for Sigma Pi, Software Developer for Legacy Robotics, Volunteer for ENGin

Experience

Software Engineer — Irvine, CA

University of California, Irvine — *June 2022 – June 2025*

- Developed a **Java** automation system for effort reporting, reducing processing time by **90%**.
- Architected a documentation generator using **Java and RESTful APIs**, improving onboarding efficiency.
- Implemented **backend** features for a financial aid portal using **Java/JUnit**, improving data loading by **30%**.
- Created a frontend **testing framework** using **React and Playwright**, resolving UI inconsistencies.
- Designed a database anonymization application using **Java/SQL** for FERPA compliance.

Undergraduate Researcher — Irvine, CA

He Lab, University of California, Irvine — *January 2024 – December 2024*

- Developed a **deep-learning model** for nano-particle motion prediction (pending paper publication).
- Engineered a Python-based CNN for electron microscopy analysis, achieving **95%** accuracy.
- Created a synthetic **data generation** pipeline producing **10,000+** realistic microscopy images.

Projects

AI-Based Stock Trading | *Python, REST APIs* | github.com/Neelansh-Khare/tradingScriptBardSchwab

- Engineered an automated trading system using AI for market analysis and Schwab APIs for execution.
- Implemented risk management algorithms with stop-loss mechanisms, reducing potential losses by **15%**.
- Developed real-time market monitoring system with **sub-second latency**.

Object Recognition System | *Python, OpenCV* | github.com/Neelansh-Khare/ComputerVisionProgram

- Built a real-time object detection system with **97%** accuracy using custom-trained CNN models.
- Designed a user-friendly GUI for visualization and result logging using Matplotlib.

AI File Organizer | *Python, ML* | github.com/Neelansh-Khare/AI-File-Organizer

- Engineered a file management system using K-Means clustering, reducing manual organization time by **75%**.
- Implemented cosine similarity algorithms for sorting files with **92%** classification accuracy.
- Developed text processing and embedding pipelines for 8 file types, handling **5,000+** test files.

Compiler and Interpreter | *Python* | github.com/Neelansh-Khare/compiler-tiny

- Built a fully-functional compiler/interpreter for the Tiny language with lexer, parser, and semantic analyzer.
- Implemented support for user-defined functions and variables in the language processing pipeline.