

Neelansh Khare

949-992-6803 | kharen@uci.edu | [linkedin.com/in/neelansh-khare](https://www.linkedin.com/in/neelansh-khare) | github.com/Neelansh-Khare | neelansh-khare.github.io/portfolio

TECHNICAL SKILLS

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

Frameworks/Technologies: React, AWS, TensorFlow, Docker, Git

EDUCATION

University of California - Irvine

Irvine, CA

B.S. Computer Science

Expected Graduation: 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

June 2022 – Present

University of California, Irvine

Irvine, CA

- 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

January 2024 – Present

He Lab, University of California, Irvine

Irvine, CA

- 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.

Discord Bots | *Python, REST APIs* | <https://github.com/Neelansh-Khare/discordBots>

- Implemented engagement features with a PostgreSQL leaderboard system, driving **70%** increase in user engagement.
- Designed asynchronous event handling system for optimal performance during high-traffic periods avoiding deadlocks.