# ROHIT KUMAR

Shiv Nadar University, Chennai

Aspiring Software Development Engineer with a solid foundation in computer science. Experienced in building scalable and efficient systems, designing robust software architectures, and developing high-quality applications. Skilled in problem-solving, algorithm design, and collaborative development. Passionate about creating impactful, maintainable, and high-performance software solutions.

#### Education

# Shiv Nadar University, Chennai

Artificial Intelligence & Data Science

September 2022 – May 2026 Chennai, Tamil Nadu

## **Technical Skills**

Programming Languages: Java, Python, JavaScript

Web Development & Backend: React.js, Node.js, Express.js, FastAPI, REST APIs, Microservices, HTML, CSS

Databases: MySQL, MongoDB

Cloud & Tools: Git, Docker, Jupyter, AWS

Computer Science Fundamentals & Methodologies: Data Structures & Algorithms, Object Oriented Programming, Design Patterns, System Design, Computer Networks, Operating Systems, Agile Methodology

# Experience

#### Precision Infomatics Pvt. Ltd.

May 2025 - July 2025

Machine Learning Intern

Chennai, Tamil Nadu

- Developed a real-time facial recognition system in **Python** with 91% accuracy in a 5-member team.
- Integrated CNN-based DL models for real-time recognition, reducing false positives.
- Evaluated models using ROC-AUC, precision-recall, and Cohen's Kappa for performance tuning.
- Enhanced dataset size and diversity by generating 800+ synthetic samples using **StyleGAN**, improving model generalization.

# Cognifyz Technology

November 2024 – December 2024

Front End Developer Intern

Chennai, Tamil Nadu

- Designed responsive web pages using **React.js** and **CSS**, improving cross-device usability by 30%.
- Integrated frontend components with backend **REST APIs** using **Axios** and **Express.js**, reducing page load time by 25%.
- Created **Postman** test collections for **REST API** endpoints, reducing regression testing time by 50%.
- Deployed a scalable **FastAPI** backend capable of handling 90+ concurrent queries with <200ms average response time.

## **Projects**

## Semantic News Search Engine | FastAPI, Sentence-BERT, FAISS, React.js, CSS

January 2025

- Developed a semantic search engine using Sentence-BERT and FAISS, enhancing result relevance by 45%.
- Designed a responsive UI with React and CSS for seamless multi-device navigation.
- Deployed a FastAPI backend capable of handling 90+ concurrent requests with 200ms average latency.
- Wrote PyTest-based unit tests for core API endpoints, achieving 80% code coverage.

#### Bank Management System | Java, JavaFX, OOP, File Handling, MySQL

January 2024

- Built a Java-based desktop banking system simulating operations such as account creation, deposits, withdrawals, and transaction logs.
- Designed an interactive GUI using JavaFX to manage 500+ customer records with real-time updates.
- Implemented JUnit tests covering all business logic paths, achieving 85% code coverage.
- Improved transaction reliability through robust validation and exception handling.

### Achievements

Code Fusion 2.0 – Hackathon: Ranked 7<sup>th</sup> nationally for proposing an original problem and developing a fully functional AI-based prototype.

SNF Foundation Scholarship (2022–2026): Received a 100% scholarship for academic excellence in the B.Tech. Artificial Intelligence & Data Science program.

**LeetCode:** Solved 450+ problems on **LeetCode** with a contest rating of 1576, specializing in algorithms and data structures.