# Viraj Patel

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#### **EDUCATION**

SYRACUSE UNIVERSITY

Master of Science in Computer Science

Expected May 2025 GPA - 3.95/4

**NIRMA UNIVERSITY** 

Bachelor of Technology in Computer Science

Jul 2019 - Jun 2023 GPA - 3.7/4

**SKILLS** 

: Data Structure, Algorithm, OOP, Database Management, OS, System Design, Scrum, Agile, SDLC, Testing **Technical Skills** 

Languages : C. Python, Java, JavaScript, SQL

**Tools** : Django, MongoDB, MySQL, Docker, AWS, Github, JIRA, Confluence, Postman, Jenkins, Kubernetes

**WORK EXPERIENCE** 

#### TEACHING ASSISTANT

SYRACUSE, NEW YORK

Automata and Computing | Automata, Computing Theory, Algorithm Design, problem-solving

Aug 2024 – Present

- Mentored 50+ students, as measured by boosted algorithmic thinking, through focused sessions on Automata and Computing.
- Enhanced student understanding of state machines and formal languages, as analyzed by increased tutorial engagement and feedback scores, by developing and delivering optimized computing tutorials and 3+ office hours per week.
- Assessed 100+ assignments and projects, ensuring compliance with coding best practices and analytical depth, by guiding students in applying computational theories to solve real-world software engineering problems.

HYDERABAD, INDIA

Software Engineering Intern | Python, Jira, Confluence, REST APIs, Pandas Numpy, Matplotlib, Jupyter Jan 2023 - Jul 2023 Delivered technical support to the Global Business Unit Jira/Confluence team, as evaluated by seamless operations across 15+

- critical projects and refined workflows, by proactively resolving issues and maintaining system efficiency. Automated testing for plug-ins and macros, as evaluated by an 80% reduction in manual workload, by developing Python scripts
- and algorithms to interface with REST APIs and validate 100+ Confluence pages and 70+ Jira tickets.
- Optimized code efficiency and performance, as measured by built on functionality of 70+ macros, through data analysis.

#### NIRMA UNIVERSITY

AHMEDABAD, INDIA

**Research Intern** | Python, TensorFlow, Keras, Deep Learning, JavaScript, GenAI

Jun 2022 – Aug 2022

- Achieved 88% precision in predicting X-Y screen coordinates by developing an Eye Gaze Estimation model using TensorFlow.
- Improved eye-tracking performance with a minimal angular error of 3 degrees by optimizing deep learning architectures.
- Enhanced training accuracy by fine-tuning the best-performing model, leading to reliable real-time application deployment.

## **PROJECTS**

FINBOT | Python, Django, NLP, Data Analysis, Recommendation System, LSTM, ETL, Docker, JavaScript Jul 2024 - Sep 2024

- Monitored over 100 stocks and mutual funds, enhancing investment decision-making by developing a financial assistant.
- Achieved accurate stock price tracking and sentiment analysis for 6 months by implementing chatbot-based recommendations.
- Improved accuracy in investment strategies by training a Machine Learning model on 5,000+ records for analytics.

SPENDWISE | Python, Django, Git, Microservices, SDLC, Scrum, OOP, Database Management, SQL

- Accomplished detailed income and expense tracking as analyzed by streamlined financial insights for users, by developing interactive visual graphs and dashboards for clear analysis and understanding.
- Executed the development of a finance management application supporting over 100 global currencies, as quantified by its ability to process multi-currency transactions in real-time, by leveraging advanced algorithms and integrating financial APIs.
- Boosted code modularity and maintainability using object-oriented principles and UML diagrams by applying system design.

### BLOOD BANK MANAGEMENT SYSTEM | Java, File Handling, I/O, System Design, OOP

Jan 2022 - May 2022

- Designed and developed a Blood Bank Management System to manage over 1,000 donor and recipient records, enabling efficient tracking of blood availability and donation history, by implementing modular design and robust exception handling.
- Implemented a Blood Bank Management System to manage 1,000+ records, utilizing object-oriented programming and system design principles in Java to enhance modularity and maintainability.
- Elevated resource management as quantified by automated capabilities, by integrating an inventory system for 8 types of blood.

#### **ACHIEVEMENTS**

- Explainable Artificial Intelligence(AI) for Industry 5.0: Vision, Architecture, and Potential Directions
- **Welcome Brand Ambassador of Syracuse University**
- **Mined Hackathon:** Secured 2<sup>nd</sup> position by creating a model for recommending medicine based on medical conditions
- **Amazon Web Services Certified Cloud Practitioner**
- Amazon Web Services Certified Data Engineer Associate