# Viraj Patel

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## **EDUCATION**

Syracuse University Expected May 2025

Master of Science in Computer Science

GPA - 3.95/4

Relevant Coursework - Intro to Data Science, Natural Language Processing, Social Media Data Mining

Nirma University

Jul 2019 - Jun 2023

Bachelor of Technology in Computer Science

GPA - 3.7/4

Relevant Coursework - Artificial Intelligence, Deep Learning, Machine Learning, Probability and Statistics

#### **SKILLS**

Technical Skills : Machine Learning, Data Preprocessing, Database, Snowflake, Docker, AWS Glue, AWS CodePipeline

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

Tools : Django, MongoDB, PowerBI, Git, MySQL, Microsoft Excel, Hadoop, PostgreSQL, PyTorch, Tensorflow

#### WORK EXPERIENCE

iConsult Collaborative Syracuse, NY

**Data Analyst/Engineer** | Python Data Processing, ETL, Data Mining, Data Analysis, Data Visualization Nov 2024 – Present

- Focused on achieving a 30% reduction in data processing times as assessed by workflow efficiency and data throughput, by preprocessing, cleaning, and optimizing extensive traffic data with advanced techniques.
- Planned for a 20% reduction in peak traffic jams as measured by strategic interventions and congestion mitigation strategies, by thoroughly analyzing citywide traffic patterns and identifying critical congestion factors.
- Aimed for a 30% reduction in peak congestion as measured by targeted measures, by utilizing traffic analysis to critical areas.

Teaching Assistant Syracuse, NY

Automata and Computing | Automata, Computing Theory, Data Analysis, Problem-Solving, Advanced Excel Aug 2024 – Present

- Supported 50+ undergraduate and graduate students in mastering automata and computing concepts as evidenced by significantly increased grades, by guiding them in advanced problem-solving and algorithmic thinking techniques.
- Enhanced analytical reasoning as demonstrated by assessment outcomes, by conducting tutorials on various topics.
- Achieved trend analysis and insights as reflected by a 15% improvement in test scores, by performance charts analysis.

Oracle Hyderabad, IND

Software Engineering Intern | Python, Jira, Confluence, REST APIs, Numpy, Matplotlib, Pivot Table Jan 2023 – Jul 2023

- Reduced manual workload by 80% as indicated by significant time savings, increased team productivity, and fewer operational errors, by using Python scripts to streamline testing for plug-ins and macros across 15+ software projects.
- Accomplished prioritization of 100+ Confluence pages and key Jira tickets as shown by views, usage metrics, and weekly resolution time, by analyzing page importance and ticket criticality to optimize resource allocation.
- Delivered smooth operations across 15+ projects as assessed by fewer technical issues, by supporting the GBU team.

Nirma University Ahmedabad, IND

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

Jun 2022 - Aug 2022

- Achieved 88% precision in predicting X-Y screen coordinates as indicated by model accuracy, validation results, and testing
  metrics, by building and fine-tuning an advanced Eye Gaze Estimation model using TensorFlow.
- Minimized angular error to 3 degrees as evidenced by accuracy, by fine-tuning the best model for training and optimization.

# **PROJECTS**

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

- Delivered a financial assistant managing 100+ stocks as demonstrated by improved decisions, by integrating automation.
- Enabled price tracking and stock recommendations as shown by 6 months' performance, by developing a chatbot.
- Implemented advanced predictive analytics capabilities by utilizing 10,000 records and training a machine learning model.

# **Detect Farm Intrusion Using Thermal Images** | Python, Data Mining, Data Analysis Jan 20

Jan 2022 - May 2022

- Engineered a real-time intrusion detection model as exhibited by 78% accuracy, by identifying nocturnal threats on farms.
- Accomplished effective training as Showcased by dataset quality, by curating and preprocessing 7,000 thermal images.
- Optimized threat detection as supported by animal detection accuracy, by deploying YOLOv4-tiny-31 for superior performance.

### **ACHIEVEMENTS**

- Explainable Artificial Intelligence(AI) for Industry 5.0: Vision, Architecture, and Potential Directions
- Amazon Web Services Certified Cloud Practitioner
- Amazon Web Services Certified Data Engineer Associate