# **Satyam Chandrakant Chatrola**

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#### **EDUCATION**

**New York University** 

New York, USA

• Master of Science in Computer Science

- September 2023 May 2025
- Coursework: Machine Learning, Computer Vision, Deep Learning, Big Data, Design and Analysis of Algorithms, Computer Networking
- Cumulative GPA: 3.667 / 4.00

#### **Gujarat Technological University**

Gujarat, India

Bachelor of Engineering in Computer Engineering

June 2018 – June 2022

- Cumulative GPA: 8.54 / 10.00 (WES course-by-course evaluation GPA: 3.79 / 4.00)
- **Volunteered** as an educator for Bakrol village's underprivileged children to a group of over 20 students, fostering academic growth.
- Relevant Coursework: Linear Algebra, Calculus, Probability and Statistics, Discrete Mathematics, Data Structures, Analysis and Design of Algorithms, Database Management Systems, Operating Systems, Software Engineering, Compiler Design, Web Development, Information Security, Cloud Computing, Artificial Intelligence, Data Visualization, Data Science, Machine Learning (ML).

#### **WORK EXPERIENCE**

### **RAPIDOPS SOLUTIONS PVT. LTD.**

Ahmedabad, Gujarat, India June 2022 – June 2023

**Junior Data Scientist** 

- Spearheaded the development of a smart face recognition-based attendance system using a 10-megapixel camera for 500+ employees, enhancing productivity tracking and authentication processes.
- Developed Al-powered search & recommendation with custom taggers & LTR techniques with Apache Solr to serve results in 10ms.
- Engineered **automation tools for converting product catalogs** for ecommerce platforms like BigCommerce and Shopify, significantly streamlining product management workflows.
- Designed and conducted **workshops** on Git/GitHub and Machine Learning, imparting practical skills to **23 summer interns**, which facilitated their project contributions.

Intern

January 2022 - May 2022

- Designed advanced machine learning pipelines enhancing data processing capabilities and reducing model training time by 13%.
- Crafted and integrated a recommendation system with market basket analysis that boosted business revenue by 8.5%.
- Developed a backend for an ecommerce website using Node.js and MongoDB, optimizing for responsiveness and scalability.

# **SKILLS**

- Al and Big Data: Python, TensorFlow, PyTorch, Generative Al, Recommendation and Search Systems, Diffusion Models, Transformers, LLMs with RAG, Prompt Engineering, Computer Vision, Natural Language Processing, PySpark, Hadoop, OpenCV, dlib.
- Web Technologies and Databases: HTML/CSS, JavaScript, NodeJS, REST APIs, MongoDB, PostgreSQL, Apache Solr.
- Others: SQL, Git, Google Cloud Platform, C/C++, Java, System Design, Power Bl.

# **RESEARCH EXPERIENCE**

# Approaches to Type 2 Diabetes Mellitus Prediction with Machine Learning and Deep Learning

Authored a research paper on Machine Learning and Deep Learning techniques for predicting Type-2 Diabetes Mellitus, achieving a
classification accuracy with 95.8% precision and recall, and 99.4% specificity using BRFSS data.

#### **CERTIFICATIONS**

- Inferential Statistical Analysis with Python offered by the University of Michigan with a score of 100%.
- Applied Machine Learning in Python offered by the University of Michigan with a score of 96.56%.
- Machine Learning A-Z: Python and R in Data Science offered by Udemy.
- Successfully completed **5 Google Cloud Skill Boost Challenges** (Essentials, Data, Architecture, Security, and Data+) in **5 days**.

#### PROJECTS AND OPEN-SOURCE CONTRIBUTION

# Automated Al-based essay evaluation with Transformers and fine-tuned Large Language Models (LLMs)

Leveraged Transformers and fine-tuned LLMs like GPT-2 to evaluate essays with a Kappa Score of 81.7%.

# **Multiple Noise Source Identification in New York City**

Developed an AI model with ensemble of Machine Learning techniques to identify 10 noise sources of NYC with 86% accuracy.

### **Migrating ETL Data Pipeline to Spark**

• Migrated the data pipeline to Spark for **NYU's Open-Source** wildlife trafficking prevention project with **160%** speedup.

### **ACHIEVEMENTS**

- Secured **first place** in the prestigious **India's Next Development Renewable Energy & Astronomy (INDRA-9)** competition, presenting an innovative smart irrigation system in sustainable agricultural technology, outperforming over **100** competing teams.
- Achieved first runner-up in the Kaggle O Predictor, a data science competition, showcasing analytics and predictive modeling skills.
- Was awarded the Best Intern award during the internship at Rapidops among over 35 interns.