Satyam Chandrakant Chatrola

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https://nightshade14.github.io/satyamchatrola/ cloudskillsboost.google/public_profiles/8f8d70ce-809c-45e2-b6ba-022e3bc4cf9f

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: 3.611 / 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**
Junior Data Scientist **June 2022 – June 2023**
- 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 AI-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

- **AI and Big Data:** Python, TensorFlow, PyTorch, **Generative AI**, **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 BI.

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 AI-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.