Chaitanya Patil

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EDUCATION

Rochester Institute of Technology (GPA 3.56/4) **08/2023 – 05/2025**
Master of Science in Information Technology and Analytics. Rochester, USA
Relevant Coursework: - Database Design and implementation, Non-Relational Data Management, Visual Analytics, Data Warehousing.

Mumbai University (GPA 3.45/4) **08/2018 – 06/2022**
Bachelor of Engineering in *Information Technology.* Mumbai, India
Relevant Coursework: - Data Structures and Algorithms, Big Data Analytics, Cloud Computing, Data Mining and Business Intelligence.

TECHNICAL SKILLS

- **Languages & Tools:** Python, R, SQL, Java, C++, HTML/CSS, JavaScript, Git, GitHub Actions, Flask
- **ML & AI:** Scikit-learn, TensorFlow, PyTorch, Ray, Hugging Face, LLaMA 2, Logistic Regression, Time Series, Anomaly Detection
- **Data Engineering:** Pandas, NumPy, ETL Pipelines, AWS (S3, Redshift), Azure SQL, MySQL, Big Data Processing
- **Visualization & Reporting:** Tableau, Power BI, Plotly, Seaborn, Matplotlib, Excel
- **Quality & Analytics:** Data profiling, bias detection, statistical testing, root cause analysis, and agile development.

PROJECTS & RESEARCH

Stock Trend Analysis and Prediction for EV Companies
- Developed Flask-based web app for real-time EV stock trend forecasting using LSTM models, achieving 85% prediction accuracy across 6-month timeframes.
- Processed and analyzed 10+ years of historical data from 7 EV companies, implementing anomaly detection and time series modeling.
- Designed dynamic dashboards with Plotly to visualize stock correlations, trends, and anomalies in a responsive interface.

EPL Player Wage and Performance Analysis
- Developed a comprehensive Tableau dashboard analyzing wage-to-performance efficiency for 500+ Premier League players across 20 clubs and four seasons, integrating player salary, match performance, and injury history.
- Merged and cleaned multiple datasets, including injury reports, player salaries, and team stats, to assess the impact of injury frequency and duration on player value and performance ROI.
- Uncovered 15+ high-cost players whose recurring injuries reduced ROI by 22%, informing more efficient squad investment decisions.

LLM Powered Data Risk Auditor
- Architected a Streamlit-based data auditing app powered by LLaMA 2 (via Ollama) to detect data risks, biases, and anomalies in structured datasets up to 1GB.
- Engineered modular Python scripts for dataset profiling, correlation analysis, and LLM-based reasoning; flagged sensitive fields, missing values, and class imbalances.
- Built an animated, glowing UI with auto-theming and seamless transitions, using HTML, CSS, and JavaScript to enhance visual clarity.
- Improved user engagement and interpretability for non-technical users by 40% through an intuitive design experience.

WORK EXPERIENCE

Full-Stack Web Developer Intern
Null Class, Mumbai **12/2022 – 02/2023**
- Spearheaded the development of responsive full-stack web applications using HTML, CSS, JavaScript, and Flask to support internal automation tools, resulting in a 30% improvement in operational efficiency across manufacturing workflows.
- Engineered and deployed interactive dashboards that enabled real-time monitoring of key system performance indicators, streamlining the decision-making process for the engineering team.
- Collaborated with data scientists to integrate Python-based machine learning models for quality control, successfully identifying and flagging over 95% of failure cases in production environments.

Data Science Intern
Let's Grow More, Mumbai **09/2021 – 10/2021**
- Designed and optimized end-to-end data pipelines using Python and Pandas, increasing the speed and reliability of internal data processing by 40% across multiple use cases.
- Automated complex ETL (Extract, Transform, Load) workflows to clean, normalize, and structure data from various sources, reducing manual data preparation time by 35% while improving accuracy.
- Contributed to developing interactive visual reports and dashboards to support data-driven decision-making across teams, leveraging Matplotlib and Seaborn for visual analytics.

Machine Learning Intern
Dev Incepts, Mumbai **07/2021 – 08/2021**
- Engineered machine learning models (Logistic Regression, Random Forest, Gradient Boosting) that improved predictive maintenance accuracy by 18% and enhanced operational forecasting reliability.
- Automated critical stages of the model lifecycle including data preprocessing, model training, and evaluation saving the analytics team over 15 hours of manual effort weekly.
- Implemented hyperparameter tuning with GridSearchCV, boosting model precision by 12% and reducing runtime for faster deployment.