Harsh Agarwal

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EDUCATION

Purdue University — West Lafayette, Indiana
Master of Science in Industrial Engineering, GPA: 3.9/4.0 — *Aug 2023 – May 2025*
Coursework: Machine Learning, Risk Analysis, Database Management, Digital Transformation, Statistics, Project Management

Chaitanya Bharathi Institute of Technology — Hyderabad, Telangana
Bachelor of Technology in Chemical Engineering, GPA: 3.5/4.0 — *Aug 2017 – May 2021*

SKILLS

Programming: Python, R, SQL, C, MATLAB, HTML, CSS, SIMAN
Tools: Alteryx, Tableau, Power BI, Microsoft Office, Jira, Figma, Git, Minitab, Netica, Power Apps, ARENA
Frameworks & Libraries: Scikit-learn, TensorFlow, Keras, NumPy, Pandas, Matplotlib, Plotly, PyTorch, Streamlit, Ollama

INDUSTRIAL EXPERIENCE

Production Data Analyst, EOS Energy, Pittsburgh, PA — *Sep 2024 – Nov 2024*
- Analyzed production and quality data from sensor systems in battery manufacturing, performed statistical tests such as ANOVA and regression to identify trends and optimize processes.
- Developed a control chart dashboard to monitor production, enabling data-driven decision-making that improved product quality and operational efficiency.
- Developed automated daily reports for Key Production Indicators (KPIs) covering Quality and Production, enhancing data granularity for management and enabling actionable insights through real-time monitoring

Supplier Quality Analyst, Eaton, Southfield, MI — *May 2024 – Aug 2024*
- Developed a predictive model for forecasting defect appearances with 77% accuracy using intermittent demand forecasting methods (TSB) after traditional time series models (ARIMA, SARIMA, Prophet, LSTM) proved less effective.
- Automated the categorization of defect types and root causes by building a Generative AI workflow using Retrieval-Augmented Generation (RAG) on Llama 3, addressing the challenge of undefined categories in the data.
- Created an interactive Streamlit webpage for visualizing the predictive model, ensuring easy access and interpretation for stakeholders, and implemented hierarchical reconciliation for consistent results across different data levels.

Programmer Analyst, Cognizant Technology Solutions, Hyderabad, TS — *Aug 2021 – July 2023*
- Leveraged Oracle Analytics Cloud to successfully implement data warehousing solutions, improving data integration resulting in a 40% reduction in data processing time and enabling real-time insights for agile decision-making.
- Designed and deployed interactive dashboards using Oracle Analytics Cloud, elevating client operational insights with a 30% uptick in report utilization rate.
- Conducted Tableau training sessions for over 75 team members, elevating the data visualisation competency within the organization and fostering a culture of continuous learning and improvement.

INDUSTRY PROJECTS

Destination Recommender system using Graph Neural Network, **American Airlines,** Dallas, TX — *Aug 2023 – April 2024*
- Led the development of a destination recommendation system through the application of Graph Neural Networks, driving enhanced user engagement and satisfaction.
- Leveraged personalized travel suggestions to optimize the user experience, aligning product offerings with customer preferences and interests.

Optimizing Supplier Quality with Advanced Regression Models, **Eaton,** Cleaveland, OH — *Jan 2024 – April 2024*
- Established the scope of suppliers and facilitated data collection by building a Power Apps-based user-friendly application for streamlined supplier data reporting.
- Addressed the challenge of shrinking DPPM figures by analysing the performance of top suppliers and identifying leading indicators of quality issues.
- Implemented a framework for building a predictive model using regression algorithms like Linear Regression, Ridge Regression, Lasso Regression, Random Forest Regression, XGBoost.

ACADEMIC PUBLICATIONS

- "A Novel Approach to Tackle and Predict Absenteeism of Students Using Deep Learning and Data Analytics", International Conference on Edge Computing and Applications (ICECAA), IEEE, 2022. ISBN: 978-1-6654-8232-5.
- "Classification of Garbage for Robotic System Using Deep Learning Techniques", International Conference on Intelligent Computing and Control Systems (ICICCS), IEEE, 2022. ISBN: 978-1-6654-1035-9.

SELECTED CERTIFICATIONS

- MLOps | Machine Learning Operations Specialization – Duke University, Coursera
- Python for Everybody – University of Michigan, Coursera