

# PREETHI SREE ALLAM

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## EDUCATION

**Masters: Data Science**, University at Buffalo, The State University of New York, May 2024

Coursework: Data Science, Statistical Data Mining and analysis, Machine Learning, Data Structures, Algorithms and analysis, Multivariate Analysis, Digital Image Processing, Mathematics, Python, R, Statistics.

**B.Tech: Mechanical Engineering**, RVR AND JC COLLEGE OF ENGINEERING, July 2021

## EXPERIENCE

**Software Engineer, TATA CONSULTANCY SERVICES, Hyderabad, India:** May 2021 - November 2022

- Enhanced data lineage using SQL and Power BI, creating interactive dashboards for data tracking and visualization, enhancing traceability and quality by 40%, and addressing data-related issues.
- Streamlined Oracle project by promoting data pipelines, revising efficiency, driving data-driven decisions, and optimizing management for future scalability and innovation.
- Received manager's commendation for exceptional dedication, compliance, problem-solving skills, communication skills, interpersonal skills, demonstrating initiative and outstanding performance in project challenges.

**Internship, Bharat Heavy Electricals Limited (BHEL), Vizag, India:** January 2019 - June 2019

- Mastered production processes and advanced in CAD and CATIA, driving design and development in engineering projects.
- Collaborated with a team of engineers to develop innovative rail track design solutions using CAD, CATIA, and MATLAB, revising design accuracy and project outcomes.

## PROJECTS

**Library System and Tracking:** SQL, MySQL, Postgresql, Git

- Streamlined record management with SQL in the Library Management System, revamping student, book, and overdue item tracking.
- Utilized SQL for database operations and employed programming language Python for application layer development, focusing on query optimization and data manipulation.
- Implemented advanced database normalization techniques, reducing redundancy by 30% and revamping data integrity in library management system.

**Sales Database System Development:** SQL, Python, MySQL, PostgreSQL, Git

- Engineered a sophisticated sales database operating Python and SQL, integrating a data reconciliation framework to sharpen customer trend analysis. Streamlined data management, increasing strategic decision-making through in-depth insights.
- Automated data entry and crafted sales dashboards, improving performance tracking by 25% and optimizing decision-making efficiency, boosting analytical skills for data-driven quarterly sales strategies.

**Micro-Plastic Detection Using CNN:** Python, Machine Learning

- Identified micro-plastic particles (3-5 cm) on landscapes operating advanced object detection techniques.
- Implemented deep learning and image processing methods in TensorFlow to detect small plastic pieces with 95% accuracy.
- Automated process of detecting and removing micro-plastic from images and videos, increasing efficiency by 40%.

## TECHNICAL SKILLS

Languages/Skills: Python, SQL, R, OOPS, C, C++, Powerpoint, Reports, Data Structures, Algorithms, Machine Learning, Data Interpretation, Data Visualization, Data analysis, Data Cleaning, ETL, Data Modeling, Cloud, Analytical Thinking, Communication, Time Management, Problem Solving, Critical Thinking.

Tools and Databases: Visual Studio, Jupyter notebook, MySQL, PostgreSQL, Power BI, Tableau, Informatica, Excel, Hadoop, Spark, Looker, SAS, Git, Pipelines, Django, Numpy, Pandas, Jira, Matplotlib, Apache NiFi, SPSS, QlikView, Seaborn, Microsoft Azure, Microsoft excel.