

MADHUMITHA MURALI

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EDUCATION

Master of Science in Information Systems

Aug 2022 – Present

Iowa State University, Ames, Iowa, United States; CGPA: 3.67

Bachelor of Engineering in Computer Engineering

SIES Graduate School of Technology, India

May 2019

SKILLS

IT skills: SQL, T-SQL, Python (Beginner)

Tools: Informatica PowerCenter, MS Office Suite, Excel Solver, PowerBI (Beginner), Tableau (Beginner)

PROFESSIONAL EXPERIENCE

Graduate Teaching Assistant

August 2022 – Dec 2022

Iowa State University, Ames, IA

- TA for COM S 113: Introduction to Spreadsheets and Databases
- Taught students to use Microsoft Excel spreadsheets and Microsoft Access databases to input, store, process, manipulate, query, and analyze data for business and industrial applications

Senior Data Engineer

Larsen and Toubro Infotech, India

Sept 2019 - July 2022

- Designed various ETL processes that read, filter, transform, and migrate large volumes of raw data from multiple data sources into a warehouse using Informatica PowerCenter
- Enhanced Informatica mappings and handled databases using SQL queries and identified strategies to improve data reliability, efficiency, and quality
- Tested, analyzed, created procedures and validated data in SQL Server Management Studio and presented to Analytics teams for resolving business problems
- Gathered requirements, built data models and ETL pipelines for clients
- Collaborated with team leads, clients, developers, analysts, and managers and created analytical solutions
- Planned and executed activities to promote SQL, MS Excel, and Informatica PowerCenter development
- Honored with an 'Outstanding (Top Performer)' rating in workplace for two consecutive years

Intern, Nuclear Power Corporation of India Limited, India

June - July 2018

- Created a standard data validation library for the organization using JavaScript for various web applications

ACADEMIC PROJECTS

Excel Solver

- Used Excel Solver to decide how many tables to produce/store at each quarter to meet the demand at the minimum total production and inventory holding cost

Predictive Maintenance of Heavy Commercial Vehicles Using ML and Data Analytics

Sep 2019 – Nov 2019

- Front-end UI development of a website using raw data from client
- Predicted the probability of Heavy Commercial Vehicles breakdown using FUZZY algorithm thereby improving the efficiency of maintenance of the vehicles

Title: Health and Fitness website (Mini project)

- Front-end UI development of a website that focused on wellness using HTML, CSS, JavaScript, and Bootstrap

PUBLICATION

Predictive Maintenance of Heavy Commercial Vehicles Using ML and Data Analytics' in the coveted journal 'International Journal of Information and Computing Science' in April 2019 | Link: <http://ijics.com/gallery/116-april-1076.pdf>