

# 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>