Vinesh Vangapandu

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Technologies

Languages: C++, C, Java, Python PL, SQL, JavaScript, HTML/CSS, JSON.

Developer Tools: Terminal, Microsoft SQL Server, XCode, VS Code, Anaconda Navigator, Jupyter Lab, Orange 3.0, IBM SPSS, MS PowerBI, Advanced Excel, Git.

Frameworks: Tkniter, React, HDFS, Hive, Flask.

Education

MS **Wright State University** | *Computer Science* — Aug 2021 – April 2024

- GPA: 3.2/4.0
- **Coursework:** Machine Learning, Design Algorithms and Analysis, Cloud Computing, Python Programming, Testing LLM models for precision instead of recall in Information Retrieval, Advanced Programming Language, Distributed Computing, Advanced Excel, React.

BTech **Gitam Deemed to be a University** | *Computer Science* — Aug 2017 – June 2021

- GPA: 7.08
- **Coursework:** Java Development, HTML, CSS, JavaScript, Introduction to AI, C++, MS Office, Probability and Statistics, Linux, Discrete Mathematics, DataBase Management Systems.

Experience

Welkin Technologies LLC | *Data Engineer* — Alpharetta, GA, Oct 2024 – March 2025

- Worked with BI team in gathering the report requirements and Sqoop to export data into HDFS and Hive.
- Involved in the below phases of Analytics using R, Python, and Jupyter Notebook.
- Data collection and treatment: Analyzed existing internal data and external data, worked on entry errors, classification errors and defined criteria for missing values.
- Data Mining: Used cluster analysis for identifying customer segments, Decision trees used for profitable and non-profitable customers, Market Basket Analysis used for customer purchasing behavior and part/ product association.

Nihar Info Global Limited | *Junior Data Engineer Intern* — Hyderabad, India, Jan 2021 – April 2021

- Developed multiple Map Reduce jobs in Java for data cleaning and pre-processing, also assisted with data capacity planning and node forecasting.
- Developed Map Reduce programs to extract and transform the data sets and results exported back to RDBMS using Sqoop.
- Utilized advanced PL/SQL collections such as associative arrays, nested tables, and VARRAYs to handle complex data structures and improve the efficiency of data processing tasks.
- Created tables in Hive and loaded the structured (resulted from Map Reduce jobs) data.

Projects

Robot Arms Block Simulation | *C++, Multithreading, Data Structures, Terminal, Git.* visit git repo

- C++ simulation of a dual-robotic-arm system designed to rearrange blocks between two locations (L1 and L2).
- It transforms an initial state into a user-defined final state through robotic operations like pickup, move, stack, unstack, and putdown.
- This simulation models real-world logistics automation and manufacturing assembly line operations where robotic arms coordinate to manipulate objects.

Wine Sales Profit Optimizer Model using ML | *Python, ML, pandas, scikit-learn, Git.* visit git repo

- Atomic Wines, a Midwest retail chain, sought to identify underpriced wines from its wholesaler's catalog to maximize profit margins.
- Built a predictive model (Python, scikit-learn) using wine chemical properties to estimate quality scores, enabling data-driven purchasing decisions for Atomic Wines.
- Identified top 20 high-value wines by calculating a (Predicted Quality/Price) ratio, uncovering undervalued inventory with potential profit margin.
- Automated data preprocessing (Pandas, NumPy) and output generation (CSV) to streamline integration with business workflows.

Personal Web Portfolio using React+Vite | *JavaScript, CSS, React, Vite, Netlify, Git.* visit the web

- Built a modern, portfolio website built with React+Vite.
- Showcases my projects, skills, and professional experience with smooth animations and responsive design.

Certificates

Python for Everybody | University of Michigan, *Coursera.*

Machine Learning Algorithms | Supervised Learning Tip to Tail – Alberta Machine Learning Institute (AMII), *Coursera.*

Python Data Structures | Rice University, *Coursera.*

Key Competencies

Good communication skills: adept at conveying complex ideas both verbally and in writing.

Analytical thinking and problem-solving: skilled at identifying issues, analyzing data, and proposing practical solutions to complex problems.

Adaptability and flexibility: able to thrive in fast-paced, changing environments, and quickly adjust priorities to meet evolving needs.

Proficient in technical tools and software: experienced in using Anaconda Navigator, jupyter notebook, MS office, Visual Studio code, JMP, and PowerBI, with a demonstrated ability to learn new technologies quickly.