Dhanush Sambasivam

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Education

University of Maryland **Aug 2024 – Current**
Master's in Data Science College Park, MD
Coursework: *Database Management, Data Science, Mathematics, Probability & Statistics, Data Visualization, Machine Learning*

Vellore Institute of Technology **Jun 2020 – May 2024**
Bachelor of Technology in Computer Science ***(CGPA: 8.56/10)*** Chennai, India
Coursework: *DSA, Data Visualization, NLP, Image Processing, Data Engineering, computer vision, Data Mining*

Technical Skills

- **Languages:** Python, R, Matlab, SQL, C++, Java. Javascript
- **Libraries:** Tableau, Microsoft Power BI, Matplotlib, Numpy, Pandas, Seaborn, Scikit-learn, Tensorflow, OpenCV, ggplot2, Shapely SciPy, XGBoost, Statsmodels, Keras, plotly, PySpark, PyTorch, MLflow
- **Concepts:** Tableau, Databricks, Python, Business Intelligence, Looker, GCP, Big Data, Data Lake, Snowflake, Business Intelligence , Spark-SQL, Tableau, Data Engineer, ETL, VBA, pivot tables, Apache Spark, Big Data, GenAI, Hadoop, Docker, Azure, Git, Github
- **Certifications:** Generative AI with LLM (Deeplearning.AI), Data Science Professional Certificate (IBM) , PowerBI Virtual Experience (PwC Forage), Certified in Python, C, C++ (IIT, Bombay), Finance Business Analyst (Finlatics)

Work Experience

GAVS Technologies **Dec 2023 – Jul 2024**
Data Analyst and Automation, GenAI Team Chennai, India

- Developed a Python-based automation tool to clean and transform Jira and cognos ticket data, saving 8+ hours bi-weekly.
- Engineered a real-time data pipeline from Jira to Tableau using SQL for data management, generating capacity planning insights and improving client reporting efficiency by 25%.
- Built a PowerBI dashboard to replace Excel charts, enhancing insights by 40% and capturing relevant trends.
- Implemented performance analytics and KPI's using Python, Excel and Power BI to optimize a ServiceNow-based ticket collection app, which led to a 30% efficiency boost.

Hexaware Technologies **May 2023 – Jul 2023**
Research and Development Intern, Innovation Labs, R&D Department Chennai, India

- Designed and executed a comprehensive Diffusion-based Concept Art Generator Webapp working cross-functional; established a centralized platform that improved art generation speed, with a measurable impact of 30%.
- Crafted a Question Answering system for the company by web scraping the entire company website using Selenium, resulting in a 15% increase in accuracy over the existing system.
- Prepared a LangChain pipeline using the OpenAI API, Retrieval Augmented Generation (RAG) methodology, and text vectors with GenerativeAI and Python, boosting data retrieval accuracy by 25%.

National University of Singapore **Jun 2022 – Jul 2022**
Research Intern Singapore

- Completed a 60-hour "Data Analytics using Deep Learning" training and research program at NUS School of Computing (SoC) and led collaborative research with Hewlett Packard Enterprises and presented the paper.
- Built a project to predict the Economic Freedom Index using machine learning algorithms like Artificial neural networks, XGBoost, SVM, decision trees, and deep learning models, achieving 93% accuracy.
- Collected data, predicted, ranked, and compared over 180 countries using Python, Tableau, SQL, and Streamlit to create a solution for accurate analysis and prediction of freedom index scores.

Projects

Meta-Learning Work-Life Balance Predictor **Dec 2023**

- Engineered a sophisticated stacking ensemble model utilizing 14 diverse regression algorithms, optimizing work-life balance predictions by 94.5%.
- Executed a comprehensive review of regression techniques, achieving a 98.5% enhancement in predictive accuracy; the updated models directly influenced the strategic direction of product development.

Prediction of Malware Attacks on IoT Devices **Jun 2023**

- Investigated malware attacks on IoT devices through machine learning techniques, concentrating on a dataset of nine IoT devices from UCI.
- Recognized Random Forest Classifier and XGBoost as premier models for forecasting malware attacks, with XGBoost being the best model and training approach, which generated 97% accuracy.

Leadership

- **Executive Member, IEEE Computer Society:** Conducted 5+ interactive machine learning strategic projects workshops, offered insights and tools; launched a mentorship program fostering 10+ industry partnerships among participants.
- **Head Coordinator, TechnoVIT'22:** Led a team of 5 and organized the event "Coding in the Dark" for 200+ participants.