Melissa Catherine Rajamanuvel

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EDUCATION & CERTIFICATIONS

University of Wisconsin Madison
Major: Data Science BS
Sept 2024 - Dec 2025

University of St Thomas
Major: Data Analytics with Economics Domain BS
Sept 2021 - May 2024
Dean's List - Spring 2022 - Spring 2024

PROJECTS

Founder - Tecaran (Startup Project)   **Sept 2024 - Present**

- Developed an AI-powered safety device using **computer vision (OpenCV)** on Ubuntu env (Raspberry Pi)
- Built a mobile app in Xcode with Firebase backend and Google APIs for GPS tracking and SMS alerts.
- Engineered hardware integration for Raspberry Pi, configuring SMS modules and wiring sensors.
- Implemented cloud-based machine learning models for real-time image processing and threat detection.

Air Quality Index Prediction Using Machine Learning Spring 2024   **March 2024 - May 2024**

- Developed a **NN model** to predict AQI for a specific city based on the AQI index of the nearby cities.
- Utilized machine learning techniques and relevant libraries (such as scikit-learn, pandas, and matplotlib).

Predicting Cancellations for Hotel Bookings   Fall 2023   **Oct 2023 - Dec 2023**

- Predicting a cancellation model using **Random Forest Model.**
- Finding importance of variables that relate to cancellation using Machine Learning.

JOB EXPERIENCE

Administrative Assistant – Cash Office - University of Wisconsin Madison   **Sep 2024 - Present**

- Managed cash operations, including deposits, safes, and cash machines, ensuring accuracy and security.
- Provided customer service and troubleshooting support for retail units, ensuring smooth transactions.
- Coordinated cash flow during high-volume events, demonstrating adaptability and attention to detail.

Security Operation Center Analyst - University of St Thomas   **June 2024 - August 2024**

- Monitored system logs and alerts to identify security threats and took action to prevent potential incidents.
- Conducted security audits using Sumo Logic to evaluate and improve security controls.
- Analyzed phishing incidents to identify patterns and trends, improving threat detection.

ITS- Event Support Assistant - University of St Thomas   **April 2022 - August 2024**

- Provided technical support for public and private university meetings.
- Managed real-time audio/video data streams using Dante.
- Operated soundboards and audiovisual equipment during live events, ensuring optimal performance.

Media Production and Systems Engineer - University of St Thomas   **Feb 2024 - May 2024**

- Developed hands-on experience in system design and signal flow to improve media production efficiency.
- Configured and maintained audio/visual systems, troubleshooting issues to optimize performance.
- Managed studio operations and maintained multimedia equipment.

SKILLS

Technical: Python, Julia, JAVA, Development in Ubuntu environments (VM & Raspberry Pi), GitLab, GitHub
Python Libraries: scikit-learn, TensorFlow, matplotlib, pandas, Pytorch
Data Analyst Tools: JMP, Excel, R, Power BI, Minitab
Data Modelling: Computer Vision, Neural Network Model, Logistic Regression, Linear and Multiple Regression, Forecasting, Predictive modelling, Principal Component Analysis, K Nearest Neighboring, Structural Equation Modelling
Optimization Models: Linear Programming, Shortest Path Algorithms, Transportation Problem, Network Flow Optimization