Nishaant Swetharanyam Madhankumar

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Summary

Motivated and adaptable Master's student in Artificial Intelligence with hands-on experience in developing AI-driven applications, publishing research, and collaborating on innovative projects. Passionate about leveraging machine learning and data science to solve real-world problems and contribute to cutting-edge research.

Education

- **Master of Science in Artificial Intelligence**, University of Michigan, Dearborn, MI *Sept 2024 – Present*
- **Bachelor of Technology in Electronics and Computer Engineering**, SRM Institute of Science and Technology, Chennai, India *2020 – 2024 — CGPA: 8.65/10*

Professional Experience

- **Research Assistant**, University of Michigan, Dearborn *Nov 2024 – Present*
  - Collaborating on the paper *"Trustworthy Intelligent Vehicular Networks: A Survey."*
  - Conducting research on intelligent vehicular systems, focusing on trust and reliability in AI-driven networks.
  - Leveraging machine learning and data analysis to contribute meaningful insights to the research project.
  - Preparing technical documentation and supporting the professor with project development.
  - Developing a robust indoor localization system leveraging LiFi technology integrated with Artificial Intelligence to enhance accuracy and reliability.
  - Documenting findings for potential academic publication and contributing to research dissemination.
- **Data Science Intern**, Lets Grow More *Feb 2023 – Apr 2023*
  - Gained expertise in Python programming with a focus on effective code architecture.
  - Applied statistical methods for operational insights and future forecasting.
  - Implemented machine learning algorithms for predictive modeling.
  - Executed image processing tasks, including object detection and feature extraction.

Technical Skills

- **Programming Languages:** Python, C, C++, SQL, Data Structures, MATLAB
- **Frameworks and Libraries:** TensorFlow, Streamlit, scikit-learn
- **Tools and Platforms:** GitHub, MySQL, AutoCAD
- **Design and Visualization:** Canva, Photo-shop, Figma

Projects and Publications

- **Sereni Sounds: An AI-Based Stress Relief Music Recommendation System** *May 2024*
  Developed an AI-based system that recommends music to alleviate stress. Presented at the International Conference on Communication Networks and AI in Computing 2024. Utilized Python, Machine Learning, Streamlit, and TensorFlow.
- **Wave and Play: Hand Gestures Redefining User Experience** *Dec 2023*
  Created a hand gesture-controlled virtual mouse and calculator. Published in IEEE - International Conference on Intelligent Communication Technologies and Virtual Mobile Networks 2024 (ISBN: 979-8-3503-8564-9). Leveraged Deep Learning and Computer Vision techniques.
- **TasteCode: A Food Recommendation Mobile Application** *Dec 2024*
  Collaborating with a team to develop an innovative mobile application for personalized food and recipe recommendations. Utilizing Android Studio and Firebase for app development and data storage, ensuring a seamless user experience. Designing and implementing key features, including user authentication, recipe search, filter functionalities, and grocery cost estimation. Developing machine learning algorithms for personalized recipe suggestions based on user preferences and dietary restrictions. Creating interactive and user-friendly UI/UX designs using Figma, focusing on accessibility and engagement.

Certifications

- **Python for Machine Learning and Data Science Masterclass** – Udemy
- **Artificial Intelligence and Machine Learning Concepts** – Cisco
- **Data Collection** – Cisco