Utsav A. Negi

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https://negiutsav9.github.io/personal-website/

EXPERIENCE

Undergraduate Research Assistant
Skunkworks Informatics, University of Wisconsin-Madison   September 2022 -May 2023, Madison, WI
· Assisted Professor Dane Morgan in his project to build cloud-based prediction tools.
· Developed 4 machine learning models to predict material properties as specified in research papers.
· Used hyperparameter tuning techniques to increase the model accuracy up to 97%.
· Shared the trained models through a cloud foundry infrastructure to assist material science researchers across the world.

EBS-ERP Student Team Lead
Division of Information Technology, University of Wisconsin - Madison   September 2021 -May 2023, Madison, WI
· Conducted and evaluated regression testing steps for more than 5 times per week in a quality assurance HR testing environment.
· Developed an automated tool to analyze and report 1000+ software changes in the HR system, boosting the productivity to more than 60%.
· Mentored a student team in the field of software development lifecycle in the context of HRS.
· Assigned responsibilities to the team based on the skill sets of each team member and collaborated with the team to accomplish the goals.

Software Research Intern
Space Sciences and Engineering Center, University of Wisconsin-Madison   May 2022 - September 2022, Madison, WI
· Collaborated with researcher Chris Schmidt working on Wildfire Automated Biomass Burning Algorithm.
· Developed a map tile generator which generates 256 by 256 vector tiles of the entire planet.
· Devised an algorithm to create scaled map images based on given dimension and coordinates using Mapnik library.
· Containerized the software along with the map database using Podman and Docker to increase the scalability by 50%.

PROJECTS

Personal Website
Personal Project · January 2023 -May 2023
· Developed a React web application that showcases my skills, accomplishments, and professional journey in a memorable way.
· Planned a personalized branding strategy for the website by incorporating styles that aligns with my professional identity.
· Integrated a contact form to expect a 40% increase in developing professional connections for project collaborations and job opportunities.
· Regularly updated and maintained the website with fresh content to improve user retention by 20% as well as to demonstrate professionalism, dedication, and ongoing growth in my career.

Fuel Finders
Course Project · January 2023 -May 2023
· Developed an Android application to track user's fuel expenditures and discover prices offered by fuel stations within 10km.
· Implemented robust crowdsourcing technology to collect real-time data on fuel prices from users, ensuring up-to-date and accurate information for nearby fuel stations.
· Designed an intuitive and user-friendly interface that simplifies the process of logging fuel expenses and provides a clear overview of consumption patterns, promoting efficient fuel management.
· Fuel consumption trends and analytics provided by the app assisted users reduce their carbon footprint by an estimated 15% collectively.

Face Mask Detection
Course Project · October 2022 - December 2022
· Developed a machine learning model using TensorFlow to detect whether a given face wore a mask.
· Applied the concepts of transfer learning by using the results of face detection to train the mask detection model.
· The trained model attained an accuracy of 95% during the testing phase.
· During the real-time application, the model ran at 30 FPS with the help of 60W Mobile GPU.

EDUCATION

Bachelor of Science in Computer Engineering and Computer Science
University of Wisconsin - Madison · Madison, WI · 2023 · 3.48

SKILLS

Programming Languages: Java, C, C++, Python

Web Development: HTML, CSS, JavaScript, React, Node.js, Svelte

Mobile Development: Java for Android, Swift for iOS, React Native, Flutter

Data Management: MySQL, PostgreSQL, Firebase, Supabase