Utsav A. Negi

⊙ Madison, Wisconsin, United States ✉ utsavnegi12@gmail.com ☐ +16087707348 🔗 in/unegi 🌐 https://negiutsav9.github.io/personal-website/

SUMMARY

Motivated Software Developer with a solid foundation in software, web and mobile application development and a strong desire to explore diverse industries. Seeking opportunities to apply my skills and contribute to the development of innovative solutions while leveraging my knowledge in data science and machine learning.

EXPERIENCE

Undergraduate Research Assistant

Informatics Skunkworks, 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 Application Support 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

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, Computer Engineering & Computer Science

University of Wisconsin - Madison · Madison, WI · 2023 · 3.5

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

Machine Learning : TensorFlow, PyTorch, Scikit-learn, OpenCV

Cloud Development : IBM Watson, Google Cloud Platform, Amazon Web Services, Docker, Podman