Utsav A. Negi

Madison, WI | utsavnegi12@gmail.com | 6087707348 | 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 while leveraging my knowledge in hardware engineering, data science and machine learning.

EDUCATION

University of Wisconsin - Madison Madison, WI

B.Sc in Computer Engineering and Computer Science *Graduation Date: May 2023*

WORK EXPERIENCE

Informatics Skunkworks, UW-Madison **Madison, WI**

Undergraduate Research Assistant *Sep 2022 - May 2023*

- 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.

Division of Information Technology, UW-Madison **Madison, WI**

EBS-ERP Application Support Student Team Lead *Sep 2021 - May 2023*

- 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 over 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.

Space Sciences and Engineering Center, UW-Madison **Madison, WI**

Software Research Intern *May 2022 - Sep 2022*

- 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%.

PROJECT EXPERIENCE

ECE 454: Mobile Application Development Madison, WI

Fuel Finders *Jan 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 about nearby fuel stations.
- Designed an 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 assisted the users to reduce their carbon footprint by an estimated 15% collectively.

ECE 539: Artificial Neural Networks Madison, WI

Face Mask Detection *Jan 2023 - May 2023*

- 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.

SKILLS & INTERESTS

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

Web Devlopment: HTML, CSS, JavaScript, React, Node.js, Next.js

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