

Vivek Mhatre

SOFTWARE DEVELOPER · STUDENT

Current: 890 Curran Street, NW, Atlanta, GA

☎ (908) 967-8766 | ✉ vmhatre3@gatech.edu | 🏠 kaggle.com/vmhatre7686 | 🐙 github.com/VAM7686 | 🔗 linkedin.com/in/vmhatre3/

Education

Georgia Institute of Technology

Atlanta, Georgia

COMPUTER SCIENCE MAJOR, EXPECTED MAY 2022

August. 2019 - Present

- Specializing in Systems & Architecture and Intelligence · GPA: 3.88

Experience

Georgia Tech Research Institute

Atlanta, Georgia

RESEARCH INTERN

May 2020 - July 2020

- Researched and developed various custom machine learning models using Keras to accurately characterize blast waves generated by explosive charges.
- Parsed, organized, and prepared historically collected datasets using Pandas and Numpy.
- Utilized various signal processing methods to extract important features from sensor data.

Rutgers University

New Brunswick, New Jersey

RESEARCH ASSISTANT

May 2019 - August 2019

- Responsible for development of a new database entry system to track ongoing experiments.
- Conducted research in the Hybrid Micro/Nanomanufacturing Laboratory developing ionic thrusters for propulsion systems of small satellites.
- Investigated fabrication for wafer-scale arrays of hierarchical micro/nanostructures through the use of photolithography.

MobileArq

Summit, New Jersey

DATABASE PROGRAMMER

Oct. 2014 - Sept. 2018

- Maintained highly secure databases for large school districts consisting of 40,000 families.
- Created and maintained secure websites for various organizations including the Summit Tennis Club through LAMP Stack and WordPress.
- Designed mockups and wireframes for a mobile application to assess Otolaryngology residents at Columbia University.

Extracurricular Activities

Robojackets Robonav

ROBOTICS ENGINEER

- Tasked with building an autonomous robot capable of off-road navigation in varying weather and lighting conditions.
- Used OpenCV to implement a line detection algorithm able to identify lane lines and barrels posing as obstacles.
- Learned and implemented basic LiDAR mapping, path planning, and computer vision systems with ROS and C++.
- Contributed to codebase with over 30,000 lines of code and utilized CI/CD workflow.

Automotive Lidar Vertically Integrated Project

SIMULATION SUBTEAM

- Tasked with developing a scanning LiDAR system implemented on an RC vehicle to enable point-to-point autonomous navigation, with collision avoidance using ROS, Python, and C++.
- Improved the existing vehicle and world simulation to test already written code and to eliminate bugs before running code on the physical vehicle.
- Creating new gazebo simulations, such as moving obstacles, to test the robustness of our algorithms.

Projects

HACKATHONS AND MORE

- Too Long Didn't Listen (TL:DL): Created a tool during HackGT 2019 to convert an mp3 file into a summarized version of the audio, highlighting keywords and linking selected phrases.
- Created a voice assistant during the HackNYU 2018 hackathon to recognize toxic language and depression using machine learning.
- Created a Fantasy Premier League tool to accurately predict player performances using machine learning in Python.
- Created a basic aimbot in Counter-Strike: Global Offensive using C and x86 Assembly.
- Modeled local weather data using Python to view differences in weather patterns in the past decade.

Skills

Technologies TensorFlow, Scikit-Learn, Jupyter, Pandas, Numpy

Programming Languages Python, R, Java, Javascript, MATLAB, \LaTeX