Syed Ahmad Shah

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Education

STEVENS INSTITUTE OF TECHNOLOGY Hoboken, NJ
Bachelor of Engineering, Software Engineering. GPA: 3.7 / 4 May 2025
Coursework: Entrepreneurial Design, Algorithmic Thinking

Skills

Technical: Knowledge of JavaScript, Python, CSS, HTML, Java, and C++.
Experience with Microsoft Office, Visual Studio, PyCharm, SolidWorks, and React Native.
Experience in utilizing TensorFlow, OpenCV, MO and SO Tracking, and microcontrollers.
Language: English (native), Urdu (intermediate), Arabic (beginner).

Experience

IDTECH Princeton, NJ
Robotics Engineering Instructor May–August 2022

- Instructed 10 – 15 individuals in robotic design involving Vex modules and devices.
- Taught fundamentals of code structure, and C++ syntax and associated libraries.

Projects

DETECTION AND TRACKER SOFTWARE
Programmer

- Designed and implemented a detection software using OpenCV and color masking to accurately identify objects for tracking through color range detection.
- Developed a tracker software in Python using YoloV3 dataset and weights to train the algorithm.
- Constructed tracker to maintain constant tracking on certain persons even when occluded by objects or other people even when direct sight is lost momentarily.

DOG AND CAT CLASSIFICATION
Programmer

- Collaborated in a team of 3 with each person assigned a project section matching their abilities.
- Project aimed to accurately identify cat or dog in user-chosen image.
- Employed the use of a pretrained model, MobileNet V2, with determined weights that were adjusted.
- Trained model on images from a Dogs and Cats dataset.

PATHFINDING VEHICLE Hoboken, NJ
Designer and Engineer April 2022

- Programmed C++ logic to coordinate electronic and mechanical objects and guarantee the vehicle takes the most efficient route to its destination.
- Formulated the 3D design of the pathfinding vehicle in Solidworks, considering necessary attachments.
- Arranged multiple ultrasonic sensors for close range object avoidance, utilizing an Arduino as the processing unit.
- Outfitted the vehicle with a float that used a lidar system to accurately determine its position.

Leadership & Activities

HACKATHON
Planner and Back-End Developer, Acquired 9th Place amongst 150 groups 2019

- Led a team of 3 by assigning specific tasks to different members to maximize efficiency and quality of the final product.
- Developed application to provide easy accessibility to distributing aid to a cause of the user's choice.
- Designed Back-End code for the project in Python.
- Designed layout and scheme for Front-End development, requiring HTML and CSS.