AAKASH SHETTY

New York, NY | aks9108@nyu.edu | +1(970) 691-6518 |

EDUCATION

New York University, New York, USA **CGPA: 3.86**
Master of Science in Computer Science, May 2023

Narsee Monjee Institute of Management Studies, Mumbai, India **CGPA: 3.38**
Bachelor of Technology in Computer Engineering, May 2021

EXPERIENCE

Machine Learning Research Intern **July 2023 - Current**
AI4CE Lab *New York, USA*

- Conducting extensive data collection and analysis to map New York City for autonomous vehicle applications, leveraging technologies such as LiDARs, 360° Cameras, and radars.
- Utilizing DeepMapping(DNNs) to align multiple point clouds in a globally consistent manner.

Big Data Course Assistant **September 2022 - May 2023**
New York University *New York, USA*

- Provided assistance to a professor with the Big data course, delivering results by grading assignments and projects for over 100 students throughout the semester.
- Leveraged expertise in popular Big data tools such as Apache Hadoop and Spark, assisting fellow students in overcoming technical challenges and optimizing their code to process massive datasets efficiently in HPC.

Computer Vision Algorithm Developer Intern **June 2022 - August 2022**
Sony Corporation *Tokyo, Japan*

- Developed, Trained and Tested Vision Transformer based object detection model, achieving 8% higher accuracy than the existing SOTA CNN based model, for autonomous vehicles.
- Validated the model's performance by training it using a vast dataset of real-world data captured by high-resolution image sensors, combined with public datasets such as COCO and Waymo.

Web Developer Intern **April 2021 - May 2021**
The Sparks Foundation *Mumbai, India*

- Developed a fully-functional prototype Banking website using Django, Python, HTML, CSS, and JavaScript.
- Implemented transaction details and history, enabling users to track their financial activities and generating reports.

PUBLICATIONS

Review of Object detection Techniques 2021 6th International Conference for Convergence in Technology (I2CT).

Classification and Detection of Skin Cancer using Image processing Proceedings of the 2nd International Conference on Recent Trends in Machine Learning, IoT, Smart Cities and Applications: ICMISC 2021.

PROJECTS

Smart Helmet for Impaired Vision Assistance | Python, PyTorch, OpenCV, Numpy, Pandas

- Developed a helmet prototype for visually impaired individuals, leveraging technologies such as Raspberry Pi, Google Maps API, YOLOv3, OCR, and a voice assistant.
- Increased user safety and independence by providing accurate street navigation instructions, object recognition, and destination guidance.

SuperSLAM | Python, PyTorch, C++, OpenCV, Ceres, TensorRT

- Built an end-to-end Visual SLAM pipeline with a deep learning based frontend using PyTorch, OpenCV, Ceres and Docker.
- Utilized SuperPoint for feature extraction and SuperGlue graph neural network for feature matching.
- Programmed the backend using C++ to accelerate bundle adjustment for accurate pose estimation and map construction.

Cloud Based Heart Diseases Predictor and Diet Recommender | AWS, XGBoost, Sagemaker, EC2, DynamoDB

- Developed a web application in streamlit hosted on the AWS cloud, using advanced data analytics techniques to predict heart diseases and provide personalized dietary suggestions for heart patients based on their diagnosis.
- Employed XGBoost algorithm in Python along with AWS tools and services, including Sagemaker, ES, EC2, Lambda.

Music App Churn Analytics | Python, Pandas, Spark, Kafka, Hadoop

- Utilized PySpark to construct churn prediction models by preprocessing and transforming data streamed through Kafka and retrieved from Hadoop. Successfully attained a churn prediction accuracy of 85%, aligning with industry benchmarks.
- Employed visualization techniques and statistical analysis to gain insights into customer behavior and predictors of churn.

SKILLS

Python, C++, Linux, SQL, PyTorch, AWS, JavaScript, Django, HTML/CSS, PostgreSQL, Spark, Pandas, Git, CUDA, Docker.