

Shyam Sundar Rampalli

Data Scientist

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Medium:

<https://medium.com/@mystmon>

Github:

<https://github.com/rampallishyam>



Professional Profile

Passionate Data Scientist with 4+ years of experience in machine learning, transportation and technical consulting. Strong Python development skills combined with the ability to analyze complex data. Extensive experience in machine learning model training, data analysis, and simulation. Looking to apply my data science and machine learning expertise to drive innovative solutions for the data science role at your company.

Work Experience

11/2022 – 02/2024 **Software Engineer**

Bosch Limited – www.bosch.in
Bangalore, India

Develop, test and implement data driven solutions for transport data.
Engage closely with clients, government agencies and customers about developed solutions and develop a business case.

- Trained ML model with 10000+ images of different vehicle types using the IDD Dataset. The trained model along with ultralytics and ByteTrack was used for traffic vehicle counts and traffic violation detection.
- Trained 5000+ images for both license plates and faces. Combined torch with openCV and ultralytics to mask faces and license plates.
- Implemented genetic algorithm for automatic parameter calibration. Improved the model development time from 5 weeks to 1 week.

09/2021 – 10/2022 **Traffic Engineer**

TUM Asia - <https://tum-asia.edu.sg/>
Singapore

Analyse and develop a model to simulate real traffic situation and realize future scenarios with autonomous vehicles to evaluate the impact.

- Processed camera data of 11 locations and created dashboards for each location using Plotly and matplotlib for automatic insight generation.

- Led a team of 4 towards the development of traffic simulation model for understanding and modelling autonomous vehicles.
- Published at an international conference on my findings of implementing unsupervised clustering on GPS data.

10/2019 – 09/2021

Research Associate

Nanyang Technological University – www.ntu.edu.sg
Singapore

- Analyzed GPS data of a bike sharing service using Plotly and matplotlib and improved the average usage time by 18% and average trip duration by 12%.
- Modelled and simulation autonomous vehicles both at driver level and at a traffic level. Observed about 15-20% impact on travel time based on the type of strategy implemented.
- Published at 1 international Conference and 2 book chapters.

Education

07/2017 – 06/2019

Master of Science
Technical University of Munich
Munich, Germany
Graduated with Merit

08/2012 – 06/2019

Bachelor of Technology
National Institute of Technology Patna
Patna, India

Additional Skills

Languages

- English (C2), German (B1), Telugu (Native), Hindi (B1)

IT-Skills

- **Advanced Knowledge:** PyTorch, sci-kit learn, numpy, matplotlib, plotly, pandas
- **Intermediate:** AWS, LaTeX, SQL, opencv, yolov8, osmnx
- **Basic:** C++, R, BeautifulSoup, networkx

31st July, 2024

Shyam Sundar