



PS RAHUL

MACHINE LEARNING ENGINEER

CONTACT

- ✉ psrahul.ml@gmail.com
- 📍 Bochum, Germany
- 🌐 [linkedin.com/in/psrahul-ml](https://www.linkedin.com/in/psrahul-ml)
- 🌐 github.com/PSRahul
- 🌐 [Certifications](#)

PROJECTS

- [CLIPtheCenter](#)
- [Image Editor with Stable Diffusion](#)
- [LLM Explorer](#)
- [PriorDepth](#)
- [Human Face Generator](#)

EXTRA-CURRICULAR

- Dean's Merit List - SASTRA University
- Teaching Assistant - *Introduction to Deep Learning* course at TU Munich
- Research Assistant - Computer Vision Team at TU Munich. [\[Paper\]](#)

LANGUAGES

- English (Fluent)
- German (Intermediate)
- Tamil (Fluent)

EDUCATION

- **Technical University of Munich, Germany** OCT 2019 - DEC 2022
M.Sc. Computational Science and Engineering CGPA 8.5 / 10
- **SASTRA University, India** JUN 2013 - MAY 2017
B.Tech Mechanical Engineering CGPA 9.2 / 10

WORK EXPERIENCE

- **TÜV Rheinland AG** MAY 2023 - APR 2024
Computer Vision and Machine Learning Developer BOCHUM, GER
 - Conducted statistical analysis of 20k+ data samples and established end-to-end data pipelines with MongoDB, FastAPI and Label Studio for streamlined data retrieval.
 - Designed and implemented a PyTorch-based distributed training infrastructure integrated with MLFlow monitoring. Introduced a novel data balancing algorithm, enhancing F1 Score from 40% to 70%.
 - Deployed machine learning models as microservices using TorchServe REST APIs in a Kubernetes cluster. Improved inference time from 272 ms to 41 ms per sample.
- **PreciTaste** MAY 2022 - DEC 2022
Machine Learning Researcher MUNICH, GER
 - Proposed a multimodal few-shot object detection model named [CLIPtheCenter](#), leveraging OpenAI's CLIP and CenterNet architectures for NLP-Vision tasks.
 - Enhanced object detection precision from 17% to 50% utilizing the proposed deep learning model compared to the baseline CenterNet architecture.
- Machine Learning Engineer - Part Time OCT 2021 - APR 2022
 - Conceptualized and implemented data-driven vision algorithms to segment the regions of interest in videos with PyTorch, replacing hand-written rules.
 - Trained and deployed object detection neural models with up-to 95 percent mean precision for production projects.
- **IPS Intelligent Video Software** JUL 2021 - SEP 2021
Machine Learning Intern MUNICH, GER
Developed deep learning-based proofs-of-concept for the detection of pedestrians from security camera devices using Tensorflow and OpenVINO.
- **Ashok Leyland** JUL 2017 - AUG 2018
Graduate Engineering Trainee CHENNAI, IND
Worked on predictive reliability analytics for automotive product components.

SKILLS

Languages and Databases Python, C, MongoDB, Redis
Machine Learning Toolkits PyTorch, Tensorflow, Scikit-Learn, Optuna
MLOps Frameworks MLFlow, Kubeflow, TorchServe, LabelStudio, FastAPI
Numerical Packages Numpy, SciPy, OpenCV, Scikit-Image, Pandas
Developer Tools Kubernetes, Docker, Earthly, [AWS Certified Cloud Practitioner](#)
Gen AI Tools OpenAI API, LangChain, HuggingFace, Diffusion Models