

Ashutosh Singh

AI Engineer, ashutoshsingh0223@gmail.com

I have 3+ years of experience working with startups in India where I worked on NLP based products. I am currently doing applied research at Fraunhofer Institute with tasks such as Image Segmentation and Multi-Modal Signal Processing, Keypoint Detection etc. using Deep Learning, trying to apply these technologies to industry projects. I also co-founded a company in India and created a video streaming services development platform from scratch.



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stackoverflow.com/users/11154976/ashutosh-singh

SKILLS

Python

AWS

Deep Learning

Computer Vision

NLP

Docker

Langchain/LLMs

Web Development

LANGUAGES

English

Muttersprache oder zweisprachig

Hindi

Muttersprache oder zweisprachig

INTERESTS

Sketching

Anime

Sci-Fi Movies

Working Out

Calisthenics

WORK EXPERIENCE

Research Associate

Fraunhofer IGD

12/2022 - Bis jetzt

Rostock, Germany

Special achievements/responsibility

- Development and Analysis of Fish measurement pipeline using python, pytorch and torchvision.
- Pipeline consists of keypoint detection, inverse relative depth estimation and relative to absolute depth regression.
- Tools: **mlflow, python, numpy, matplotlib, pytorch, git.**

Research Assistant

Fraunhofer IIS

11/2021 - 11/2022

Erlangen, Germany

Special achievements/responsibility

- Studying and analyzing latest developments in efficient architectures of Image Segmentation, like MobileNet, ShuffleNet, ESPNet etc.
- Developed U-Net like architectures based on more efficient and sparse architectures like Depth-Wise separable and grouped convolutions.
- Master Thesis - Multimodal Signal Processing and Data Fusion methods for emotion detection on datasets like MAHNOB-HCI using end-to-end Deep Learning.
- Tools: **weights & biases, python, pytorch, matplotlib, git.**

Machine Learning Engineer

Jio Haptik Technologies Limited

01/2019 - 01/2021

Mumbai, India

Special achievements/responsibility

- Developed conversational AI modules like small talk, named entity recognition.
- I also worked on Freebase data to build entity embeddings for tasks like domain classification.
- Worked on a side project for paraphrase generation using variational autoencoders.
- As an attempt towards data driven development, I developed a data analysis tool for bot analysts to remove bugs in training data.
- Tools: **Python, pytorch, numpy, matplotlib, django, mongoDB, JIRA, git, Amazon Web Services, Docker, docker-compose, rabbit-mq, celery.**

EDUCATION

Master of Science, Computational Engineering

University of Erlangen-Nuremberg

11/2020 - 11/2022

Erlangen, Germany

courses

- Deep Learning, Reinforcement Learning**
- Image & Video Multi-dimensional Signal Processing, Image & Video Compression**
- Software Development Project(10 ECTS)**
- Machine Learning in Signal Processing**
- Algorithms in Numerical Linear Algebra**

Master of Science, Computational Science

Università della Svizzera italiana

11/2020 - 11/2022

Lugano, Switzerland

Lehrveranstaltungen

- Advanced Topics in ML, Introduction to Bayesian Computing**
- High Performance Computing**