

<div><div>Ashutosh Singh, AI Engineer</div><div>Rostock, Germany, +4917670784103, ashutosh.singh.de@gmail.com</div></div>	
LINKS	LinkedIn , Github , Stackoverflow , Portfolio
PROFILE	I have 3+ years of experience working with NLP startups in India. 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.
EMPLOYMENT HISTORY	
Dec 2022 - Present	<div><div>Research Associate(Wissenschaftlicher), Fraunhofer IGD</div><div>Rostock</div><div>Biomass Measurement: Fish measurement pipeline combining keypoint detection, inverse relative depth estimation and relative to absolute depth regression.</div></div>
Nov 2021 - Nov 2022	<div><div>Research Assistant, Fraunhofer IIS</div><div>Erlangen</div><div>Studying and analyzing latest developments in efficient architectures of Image Segmentation. Developed U-Net like architectures based on more efficient and sparse architectures like Depth-Wise separable and grouped convolutions.</div><div>Master Thesis - Multimodal Signal Processing and Data Fusion methods for emotion detection on datasets like MAHNOB-HCI using end-to-end Deep Learning.</div><div>Pytorch for running the experiments and Weights and Biases for experiment tracking.</div></div>
Jan 2019 - Jan 2021	<div><div>Machine Learning Engineer, Jio Haptik Tech Ltd</div><div>Mumbai</div><div>Co-Developed modules for Intelligent Virtual Assistant development platform. Focus was more on NER and Small-talk components. We used BERT + CRFs for sequence classification.</div><div>Worked on the Diagnostics module to improve the quality of data being used to train the virtual assistants.</div></div>
Jun 2017 - Dec 2018	<div><div>Data Scientist, jubi.ai</div><div>Mumbai</div><div>Utilized various ML and DL based methods to develop components such as Intent Detection(Text Classification) and Entity Recognition(Sequence Labeling) for Intelligent Virtual Assistants.</div><div>Deployed the systems using python based web frameworks, Docker and AWS Elastic Container Services</div></div>
EDUCATION	
Nov 2020 - Nov 2022	<div><div>Master of Science, Computational Engineering</div><div>Friedrich-Alexander Universität Erlangen-Nürnberg</div><div>Erlangen</div><div>Multidisciplinary masters course with focus on Mathematics, Computer Science and Digital Signal Processing. Brief list of subjects - Deep Learning, Reinforcement Learning, Machine Learning in Signal Processing, Image and Video Compression, , Image and Video Multidimensional Signal Processing, Linear Algebra, Optimization for Engineers.</div></div>
Nov 2020 - Nov 2022	<div><div>Master of Science, Computational Engineering</div><div>Università della Svizzera</div><div>Lugano</div><div>Brief list of subjects during a semester at USI - High Performance Computing, Intro To Bayesian Computing, Advanced Topics in Machine Learning</div></div>
June 2013 - June 2017	<div><div>Bachelor of Technology, Electronics Engineering</div><div>Kamla Nehru Institute of Technology</div><div>Sultanpur</div><div>Graduated with honors</div></div>

SKILLS

Computer Vision

Python

Deep Learning

Machine Learning

Natural Language Processing

Web Development

Tools

Github

Pytorch

Docker

Numpy

Mlflow/Weights & Biases

Amazon Web Services

MongoDB

Pandas

CV Annotation Tools

Django

HuggingFace Environment

Langchain/LLMs

LANGUAGES

English C1

Hindi Native Speaker