Ashutosh Singh, Deep Learning Engineer

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LINKS <u>LinkedIn, Github, Stackoverflow, Portfolio</u>

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 Research Associate(Wissenschaftlicher), Fraunhofer IGD

Rostock

Biomass Measurement: Fish measurement pipeline combining keypoint detection and sparse stereo matching.

Nov 2021 - Nov 2022 **Research Assistant, Fraunhofer IIS**

Erlangen

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.

Master Thesis - Multimodal Signal Processing and Data Fusion methods for emotion detection on datasets like MAHNOB-HCI using end-to-end Deep Learning.

Jan 2019 - Jan 2021 Machine Learning Engineer, Jio Haptik Tech Ltd

Mumbai

Co-Developed modules for Intelligent Virtual Assistant development platform. Focus was more on NER and Small-talk components.

Worked on the Diagnostics module to improve the quality of data being used to train the virtual assistants.

Jun 2017 - Dec 2018 **Data Scientist, jubi.ai**

Mumbai

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.

Deployed the systems using python based web frameworks, Docker and AWS Elastic Container Services

EDUCATION

Nov 2020 - Nov 2022 **Master of Science, Computational Engineering**

Friedrich-Alexander Universität Erlangen-Nürnberg

Erlangen

Multidisciplinary masters course with focus on Mathematics, Computer Science and Digital Signal Processing. Brief list of subjects -

Deep Learning, Machine Learning in Signal Processing, Image and Video Compression, Linear Algebra, Reinforcement Learning, Image and Video Multidimensional Signal Processing, Optimization for Engineers.

Nov 2020 - Nov 2022 **Master of Science, Computational Engineering**

Università della Svizzera

Lugano

Brief list of subjects during a semester at USI - High Performance Computing, Intro To Bayesian Computing, Advanced Topics in Machine Learning

June 2013 - June 2017 **Bachelor of Technology, Electronics Engineering**

Kamla Nehru Institute of Technology

Sultanpur

Graduated with honors

SKILLS Machine Learning Deep Learning Natural Language Processing

Python Web Development

Tools Git Mlflow/Weights & Biases CV Annotation Tools

Pytorch Amazon Web Services Django

LANGUAGES English C1

Hindi

Native Speaker