Tushar Dhyani

NLP · DATA SCIENCE · DEEP LEARNING · COMPUTER SCIENCE

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Education

Universität Stuttgart
MASTER OF SCIENCE IN COMPUTATIONAL LINGUISTICS
Stuttgart, Baden Württemberg, Germany
Apr. 2021 - Ongoing
- **Coursework:** *Core Linguistics* - Emotion role labelling, Parsing, Machine Translation, Machine Learning, Ethics in NLP.

Madhav Institute of Technology & Science
B.E. IN INFORMATION TECHNOLOGY (7.6/10 with *Hons.*)
Gwalior, Madhya Pradesh, India
June. 2014 - June. 2018
- **Coursework:** Data Structures & Algorithms, Operating systems, Bash programming, Software Engineering, Object oriented programming, Statistics & Discrete mathematics, Information Theory, Database Management System, Data warehousing & Data Mining, Artificial Intelligence & Expert systems, Neural Networks & fuzzy logic, etc.

Professional Experience

Unschool.ai
ARTIFICIAL INTELLIGENCE MENTOR
Mumbai, Maharashtra, India
June. 2019 - March 2021 (22 Months)
- Mentored over **4200** students for Artificial Intelligence, basics of Machine Learning & Deep Learning and Statistics.

Genietalk
JUNIOR DATA SCIENTIST
Mumbai, Maharashtra, India
March. 2019 - March. 2021 (2 Years)
- In a team of 3 Data scientists, created a Conversational SaaS platform, which helped in raising $750,000 in series A funding.
- Worked on MultiLingual conversational agents, code-mixing, Generative conversational agents and Speech to Text.

Genietalk
DATA SCIENCE INTERN
Mumbai, Maharashtra, India
July. 2018 - Oct. 2018 (3 months)
- Research on *Microsoft R-net* & *BiDirectional Attention Flow* for machine comprehension.
- Built a language identification tool for identifying English and English-typed language used in text based conversations.

Certifications

Deeplearning.ai & Coursera
GENERATIVE ADVERSARIAL NETWORKS SPECIALIZATION
Oct. 2020 - Dec. 2020
- **Coursework:** Wasserstein Loss, Latent-Space of GAN, Frechet Inception Distance, Style GAN, Cycle GANs.
- **Projects:** PIX2PIX translation, SRGAN, CycleGAN for Medical Imaging.

National Research Univ. Higher School of Economics, Moscow
ADVANCED DEEP LEARNING
Jun. 2018 - Sept. 2019
- **Coursework:** Linear and Logistic regression, Gradient descent, Stochastic optimizations.
- **Projects:** Closest Image finding, Image captioning system and GANs for face generation 32*32.

Imperial College, London
MATHEMATICS FOR MACHINE LEARNING
Oct. 2018 - Jan. 2019
- **Coursework:** Fundamentals of linear Algebra, Multivariate Calculus, Principal Component Analysis.
- **Projects:** Rebuilt the first Google Pagerank algorithm, implemented SGD from scratch, and designed PCA from scratch.

Deeplearning.ai & Coursera
DEEP LEARNING SPECIALIZATION
Jan. 2018 - Oct. 2018
- **Coursework:** Neural Networks & Deep Learning, Project Structuring, Convolutional Neural Networks, Sequence Models.
- **Projects:** Built simple neural network and CNN from scratch, implemented one-shot learning for face verification.

Achievement

Mar-2020	**Kaggle-Bengali.ai Grapheme detection**, Secured 55th rank (top 2%) and Silver medal on Kaggle	*India*
Oct-2019	**Kaggle Expert**, Expert in 2 categories - Discussion and Kernel.	*India*
Mar-2017	**Google CodeJAM-Qualification round, Facebook-Hackercup Qualifier**,	*Gwalior*
Dec-2015	**ACM ICPC-Kharagpur Regionals**, Member of team *CPP Killers* which ranked 42 (out of 76).	*IIT-Kharagpur*

Projects

Medical Augmentor — *Mumbai, Maharashtra, India*
GAN BASED AUGMENTATION FOR MEDICAL IMAGES — *Nov 2020-Feb 2021*
- Data augmentator for kidney CT segmentation task to augment scarce medical images

Bhaashaa — *Mumbai, Maharashtra, India*
TRANSLITERATED LANGUAGE UNDERSTANDING API — *May 2020*
- Python package based on BERT for linguistics processing of regional Languages based on Bert and transliteration.

Siam Ease — *Indore, M.P, India*
SIGNATURE RECOGNITION AND VERIFICATION API — *Nov 2018*
- Applied single-shot learning to create signature recognition to identify real and fraud signature using deep learning techniques.

Publications

Action based QA for Conversational Agents — -
FRAMEWORK MODIFICATION FOR CONVERSATIONAL DIALOGUE FLOW — -
- You can read the paper here: `https://www.researchgate.net/publication/337682017_ACTION_BASED_QA_FOR_CONVERSATIONAL_AGENTS`

Handling Contextualized English For Conversational Agents — *ICMISC 2020 conference*
CREATING LANGUAGE HANDLING FOR CONVERSATIONAL AGENTS — *Mar. 2020*
- You can read the paper here: `https://www.researchgate.net/publication/337012846_HANDLING_CONTEXTUALIZED_ENGLISH_TYPED_REGIONAL_LANGUAGES_FOR_CONVERSATIONAL_AGENTS_TECHNICAL_REPORT`

Forecasting Tuberculosis Morbidity Rate — *ICICSS'2018 conference*
T.B MORBIDITY ANALYSIS USING A DEEP LEARNING ALGORITHMS — *Sept. 2018*
- Presented a paper on Tuberculosis morbidity with time analysis paper in International Conference on Intelligent Computing and Sustainable System conference held under IEEE chapter.
- You can read the paper here: `https://www.researchgate.net/publication/327776140_Using_Deep_Learning_for_Forecasting_Tuberculosis_Morbidity_Rate`

Extracurricular

2019	**Stackoverflow**, #22 Top contributor at DataScience channel of Stack overflow in 2019.	*Mumbai*
2017-18	**MITS ACM Students Chapter**, Student chpater President & Core member	*Gwalior*
2018	**MITS Coding Club**, Student Chair	*Gwalior*
2016	**Codechef**, 3 star coder (Top 10 percentile in india)	*Gwalior*