

Tushar Dhyani

DEEP LEARNING · DATA SCIENCE · NLP

☎ (+91) 7000635437 | ✉ dhyanitushar@gmail.com | 🏠 tushardhyani.com | 📱 Thanatoz-1 | 📷 thanatoz | 🌐 tushar-dhyani

Work Experience

Genietalk

Mumbai, Maharashtra, India

JUNIOR DATA SCIENTIST

March. 2019 - Present

- In a team of 3 Data scientists, created a travel domain specific conversational agent called *OGenie*
- Created & responsible for continuous improvement for *Entity Extraction & Intent Extraction* data-pipeline into the conversational agent.
- Integrated native and English typed dialect support to the conversational agent.
- Serialized and improved the models and data-loaders for faster loading unloading time, bringing the overall model loading time from 13 seconds average to 2 seconds average.

Genietalk

Mumbai, Maharashtra, India

DATA SCIENCE INTERN

July. 2018 - Oct. 2018

- 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.
- Built a smart scrapper for scrapping travel blogs and travel documents from internet.

Certifications

National Research University 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.

Education

Madhav Institute of Technology & Science

Gwalior, Madhya Pradesh, India

B.E. IN INFORMATION TECHNOLOGY (7.6/10 WITH Hons.)

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.

Achievement

Mar-2020 **Kaggle-Bengali.ai Grapheme detection**, Secured 55th rank and Silver medal on Kaggle

India

Oct-2019 **Kaggle Master**, Master 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

O Genie

Indore, M.P, India

CONVERSATIONAL AGENT FOR MANAGING YOUR TRAVEL

Ongoing

- Working on creating a travel domain specific from end to end.
- Created state of the art end to end pipeline for extracting travel entities from user queries with a F1 score of 93.4% and Intent recognition for based on *Bidirectional Encoder Representations from Transformers* for travel intent identification for travel.

Query locale

Indore, M.P, India

CODE-MIXING FOR CONVERSATIONAL AGENTS

Aug 2019

- Created embedding using *Word2vec* for such possible cases & Implemented word masking on input queries for improvements.

Siam Ease

Indore, M.P, India

SIGNATURE RECOGNITION

Nov 2018

- Applied one-shot learning to create signature recognition to identify real and fraud signature.

ScrapoPedia

Gwalior, M.P, India

CREATE A NUTRITIONAL CHART OF YOUR FOOD.

June 2017

- Applied transfer learning using VGG-16 model over a self created small dataset of vegetables to achieve higher accuracy.

Raksha

Gwalior, M.P, India

CONNECTING THE HELPER WITH THE HELPEE.

Mar 2017

- Designed the front-end of the application.

Publications

Action based QA for Conversational Agents

FRAMEWORK MODIFICATION FOR ACTION BASED 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 ALGORITHM FOR BETTER

RESULTS

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 so far in 2019.	Indore
2019	Unschool.in , Instructor for Artificial Intelligence course	Indore
2017-18	MITS ACM Students Chapter , Student President & Core member	Gwalior
2018	MITS Coding Club , Student Chair	Gwalior
2016	ISTE , Graphic Designer	Gwalior