

Kartik Choudhary

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SKILLS

Programming Languages Python, C, C++, Java, SQL, MATLAB, R
Tools TensorFlow, PyTorch, OpenCV, NLTK, spaCy, Spark, Airflow
Languages English (Fluent), Hindi (Fluent/Native), Japanese (Elementary)

RESEARCH INTERESTS

- Natural Language Processing
- Explainable AI
- Reinforcement Learning
- Robotics

EDUCATION

Indian Institute of Technology Delhi

Bachelor of Technology, Electrical Engineering

Jun 2019

GPA: 7.327/10.0

B.Tech. Thesis: Occupancy learning in commercial spaces

Advisor: Prof. Seshan Srirangarajan

Predicting room occupancy in institute's Lecture Hall Complex to automate HVAC system and improve room booking system.

Projects

- Signal and Noise Analysis *Instructor: Prof. Seshan Srirangarajan*
Estimating range and velocity of target in noisy environment using correlation processing and end-point detection.
- Classification and Clustering Algos. *Instructor: Prof. Sumeet Agarwal*
Comparative analysis of models implementing SVM, CNN and Sparse Autoencoders on MNIST dataset.

Relevant Courses

- COL106 - Data Structures and Algorithms
- MTL101 - Linear Algebra and Diff. Equations
- MTL106 - Probability and Stochastic Processes
- ELL784 - Intro. To Machine Learning

EXPERIENCE

Reliance Jio, Mumbai

Jul 2019 - Present

Received highest performance feedback rating (A) for FY 2019-20 and 2020-21*

ML Engineer

Jun 2021 - Present

- Improved root cause analysis on call muting by implementing an explainable/interpretable model for network quality based on user hardware data and RF conditions.
- Improved network quality model performance by 15% by implementing a Mixture of Experts model
- Built automated system to suggest network improvement strategies including antenna tilt optimization and tower placement planning

Data Scientist

Aug 2019 - Jun 2021

- Created 600+ features for customer churn prediction model improving performance by 12 percentage point
- Streamlined customer profiling pipeline by reducing ingestion overheads, reducing server load and improving marketing campaign delivery.
- Implemented A/B testing of campaigns on geographic cohorts improving confidence levels in results
- Unified marketing campaigns and churn risk mitigation pipeline through a central Customer360 database reducing memory and computation costs.
- One more point

Graduate Engineering Trainee

Jul 2019 - Aug 2019

- Feature engineering for churn risk prediction.
- Won Best Project among 20+ teams.

Intern – New Technologies

- Created utility to standardize reports and perform data correctness checks on reports coming from different platforms.
- Developed framework to detect frauds like: Click Spamming, Fake Attribution, Non-App Store Installs and Country Conflict
- Created a GUI enabling Operations Team to use the report standardization and fraud detection tools

Voxomos Systems Pvt. Ltd., Gurgaon**Intern – NLP Research**

- Implemented an LSTM Recurrent Neural Network using TensorFlow to train a chat-bot with the ability to retain context
- Extracted a large corpus from Twitter with 5M publicly available tweets and their replies for training the chat-bot
- Tested and benchmarked effects of various regularization methods such as dropout and early stopping on performance and training stability.

CERTIFICATES

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| 1. Generative Adversarial Networks (GANs) Specialization
A 3 course specialization by DeepLearning.AI on Coursera | Jun 2021 |
| 2. Natural Language Processing Specialization
A 4 course specialization by DeepLearning.AI on Coursera | May 2021 |
| 3. Neural Networks and Deep Learning
Course by DeepLearning.AI on Coursera | Apr 2018 |

TEST SCORES

JEE (Advanced) 2015	National rank 321 in the final stage out of 150k total candidates
GRE General Test	Total score 0. Verbal - 0, Quant - 0, AWA - 0
TOEFL iBT	Total score 0. Reading - 30, Listening - 30, Speaking - 0, Writing - 0

SCHOLARSHIPS AND AWARDS

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| 1. KVPY Fellow
Eligible for scholarship under Kishore Vaigyanik Protsahan Yojana (KVPY) conducted by IISc, Bangalore | 2014 |
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ACTIVITIES AND INTERESTS

Extra curricular activities

1. Represented IIT Delhi in national stage play competition as actor in 2016.
2. Directed several university-level plays, won Best Director award in 2017.
3. Played basketball and volleyball under National Sports Organization (N.S.O.) from 2015-16.
4. Other sports – badminton, cricket and table tennis.

Clubs and societies

1. Secretary, Electrical Engineering Society, IIT Delhi. 2017-18
2. Student mentor, MRC IIT Delhi. 2017-18
3. Activity Head, Open House 2017, IIT Delhi

Volunteer work

1. Surveying accessibility of public transportation in New Delhi for persons with disabilities and presenting the results and analysis to local transport agency. Working with NGO AADI under National Service Scheme. March 2019.
2. Setting up and training underprivileged students for remote learning in govt. schools during COVID-19 lockdowns. Jun 2020