Ayush Mishra

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EDUCATION

Vellore Institute of Technology, Chennai, Tamil Nadu, India — **Jul 2015 - Apr 2019**

- B.Tech, Computer Science. CGPA: 8.89/10.00 | GPA: 10.0/10.0

WORK EXPERIENCE

FlyFin AI, Remote|Bangalore, India — **Apr 2021- Present**

■ Data Scientist

- Managing a small and focused team of 2-3 members
- End to end built the pipeline for US bank statements to identify *merchant name, merchant category and classification status* as per US tax laws (IRS), handling *100k transactions* on a daily basis with an approx *accuracy of 88%, 92% and 98%* respectively
- Worked an OCR using AWS Textract and optimized it based on our use case for extracting tax related documents info such as Form 1040, Sch 1, Sch 2, Sch A, etc. which improved the tax filing count by *55% on an yearly basis*.
- Worked on resolving user queries on real time basis by *fine-tuning of GPT-4 on IRS documents*

DailyCutting, Remote|Mumbai, India — **Dec 2018 - Mar 2021**

■ Data Scientist

- Worked with the automation team of DailyCutting.
- Focussed on automation of cards for several sports such as Soccer, Hockey, Cricket, etc.
- The automated cards included three core components: Relevant Data, Proper sentences, and appropriate images.
- Each core component derived from individual models designed to get the apposite data.
- Worked on textual as well as imagery machine learning models including both front and back-end management using ReactJS and NodeJS respectively.

RESEARCH EXPERIENCE

Global Remote Mentoring, Academy of Technology, IBM India — **May 2018- Dec 2018**

■ Data Science Research Intern.

- Paraphrase Identification while given two sentences using Deep Neural Networks.
- Preprocessing of data included embedding the words using pretrainedGoogleNews Vectors.
- Using the combination of LSTM and CNN integrated with local and global attention models.
- Project Mentor: Kuntal Dey, Senior Software Engineer(Research), Indian Research Laboratory, IBM India.

MML Lab, SCSE, Nanyang Technological University, Singapore — **Aug 2017 - Apr 2018**

■ Speech Research and Signal Processing Intern.

- Extracting the contextual meaning of a word based on the context using Glove Vectors(specifically homonyms).
- Preprocessing the data included lemmatization, stopwords removal, POS tagging.
- Used Glove vector model for the processing of preprocessed data on the Pytorch framework.
- Project Mentor: Assoc Prof Chng Eng Siong, SCSE, Nanyang Technological Unversity, Singapore.

Data Science Lab, Ashton Building, University of Liverpool, UK — **May 2017 - Jul 2017**

■ Data Science Research Intern.

- Worked on the Mapper Algorithm, a topological data science research project.
- Designed and implemented the algorithms for various building blocks of the project like Neighborhood Algorithm, etc.
- Worked on Cloud generation: Cloud(randoms or algorithmic generated) around a graph.
- Project Mentor: Dr.Vitaliy Kurlin, Associate Professor, Computer Science, University of Liverpool, UK

Software Engineering Lab, Vellore Institute of Technology, Chennai — **Jan 2017 - Jun 2017**

■ Data Science Research Intern

- Finding a new better approach to find the page ranks in a more effective and efficient manner(based on Linear Regression technique, Machine Learning) i.e Weighted Approach.

- Used Kendal Tau for comparison purpose i.e correlation between various approaches.
- Project Mentor: Dr. Pankaj Shukla, Assistant Professor, School of Advanced Sciences, VIT.

PUBLICATIONS

- *A.Mishra, T.P.Sariki, G.B.Kumar, U.Shukla. "An Adroit Approach for Extractive Text Summarization", IJEAT International Journal of Engineering and Advanced Technology, June 2019.*
- *A.Mishra, U.Shukla, G.Jasmine, V.Vijaykumar, Subramaniam Ganesan. "A Deep Neural Network Framework For Road Side Analysis and Lane Detection", ICRTAC International Conference on Recent Trends in Advanced Computing, November 2019.*
- *A.Mishra, Udaykumar N., S.Mishra, Subbulakshmi T. "Malware Category Prediction using KNN and SVM Classifier", IJMET International Journal of Mechanical Engineering and Technology, Feb 2019.*
- *A.Mishra, U.Jain, P.Shukla, B.Jaganathan "Study and Analysis of Category Based Pagerank Method", EAI International Conference on Big Data and Cloud Computing, Mar 2018.*
- *A.Mishra, U.Shukla, P.Shukla, B.Jaganathan "Study and Analysis of Improved Weighted Pagerank Method", International Conference on Big Data and Cloud Computing, Mar 2018.*

PROJECTS

Summary Builder using Extractive and Abstractive Approach

- Technical & Design Team Lead
  - An API to generate a summary of the context given the compression ratio.
  - Co-led a team of 2 students to build the API.
  - Analyzed various existing algorithms for text summarization and implemented them in an effective and efficient manner.
  - Technical Stack: Python, Keras, Scikit Learn, Pandas Model: Integrating various models into a single.

Facial expression recognition by analyzing extracted Facial Features

- Technical and Design Lead
  - We worked on detecting the current facial expression by extracting the facial features by our own and
  - training it with a Logistic Classification Model.
  - Real-time application by integrating it with webcams while video conferencing with others.
  - Guide: Professor. Vaidehi Vijaykumar(Dean of SCSE).
  - Technical Stack: Dataset Generation-Cpp, Visual studio, OpenCV, Boostcpp; Training & Testing- Python, Keras.

LEADERSHIP

- Programme Representative(PR) of the Computer Science Batch(July 2016 - Apr 2017).
- Vice President of the National Service Scheme(Jul 2016 - May 2017).
- "Best Volunteer" Award for NSS Special Camp conducted at Thiruporur(Apr 2017 - Apr2017).

SKILLS

Development: AWS, Keras, Tensorflow, Pytorch, OpenCV, Boost Graph Library(C++)
Programming: Python, NodeJS, ReactJS, C++, MATLAB, PHP.

INTERESTS

- Playing Basketball and Cricket (game with zero haters)
- Read books related to artificial intelligence, economics, and business in free time