

# Aatish Suman

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## Summary

A Tensorflow and DSP certified Machine Learning Engineer with expertise in Natural Language Processing and a Full-Stack Developer with 3+ years of experience in the financial sector. Seeking to apply Data Science knowledge to produce data driven solutions. Currently pursuing a master’s degree in Applied Data Science.

## Education

<b>Syracuse University, NY, US</b> M.S. in Applied Data Science	May, 2021
<b>Indian Institute of Technology, Roorkee, India</b> B.Tech. in Metallurgical and Materials Engineering	May, 2016

## Relevant Coursework

NLP | Text Mining | Deep Learning, NLP, and Computational Social Science | Big Data Analytics | Cloud Management

## Certifications

<a href="#">Tensorflow Developer Certificate</a> <a href="#">Data Science Process Alliance Practitioner</a>	Feb, 2021-Feb, 2024
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## Work Experience

<b>Senior Applications Developer, BNY Mellon Technology, Pune, India</b> <ul style="list-style-type: none"><li>Used clustering and similarity techniques with word-embeddings to develop a production-ready pipeline for segregating live streams of emails into predefined groups with a confidence of around 96%. (Stanford CoreNLP, GenSim)</li><li>Built an end-to-end application for using a blockchain-based distributed database system for Big Data and deployed it to the company’s production environment. (Python, Flask, BigchainDB)</li><li>Helped business identify key data relationships through dashboards and visualizations on various projects. (R, Tableau)</li><li>Assisted in the development of a predictive model for detecting fraudulent transactions in time series data using RNN-based algorithms with an F1 score of 0.82 (this was a WIP). (Keras, Tensorflow)</li><li>Spearheaded the back-end development of one of the top priority projects in the company, developing more than 35 REST APIs and being part of more than 50 production releases for the project.</li></ul>	Jun, 2016-Jul, 2019
<b>Research Assistant, Professor Bei Yu, Syracuse University, NY, US</b> <ul style="list-style-type: none"><li>Worked independently to develop a BERT-based model for identifying the key concepts in the Health Belief Model in news articles with an F1 score of 0.84. Publication in progress. (Keras, Tensorflow)</li><li>Assisted in the development of a BioBERT-based model for predicting the occurrence and level of health advice in scientific publications. Publication in progress. (PyTorch)</li></ul>	Jan, 2020-present

## Projects

<b>Syracuse University, NY, US</b> <i>Social Presence in Voluntary Online Learning Platforms –</i> <ul style="list-style-type: none"><li>Lead a team of five members to develop BERT-based models with transfer learning to identify the types of Social Presence, as defined by the Community of Inquiry framework, in the comments of volunteers on Zooniverse.</li><li>The models achieved F1 scores higher than 0.75 for famously challenging tasks like humour detection and expression of self-disclosure.</li></ul> <i>FacelT, a cloud hosted service for face mask detection –</i> <ul style="list-style-type: none"><li>Built a CNN-based model for detecting the presence of face masks in live feed images with a test accuracy of 92%, along with REST APIs to use the model for making predictions.</li><li>Assisted in the deployment of the service to AWS. (EC2, S3, CloudWatch)</li></ul> <i>Sentiment Analysis of Twitter Data: A comparative study –</i> <ul style="list-style-type: none"><li>Performed sentiment analysis on the sentiment140 dataset using traditional machine learning algorithms (NB, SVM, Random Forest, etc.) as well as deep learning algorithms (LSTM &amp; CNN) using pre-trained Word2Vec, GloVe and BERT models, and compared the performance of the algorithms.</li><li>Highest accuracy of 86% achieved for the BERT model was equivalent to the state-of-the-art models for the dataset.</li></ul>	Sep, 2020-Dec, 2020  Sep, 2020-Dec, 2020  Feb, 2020-Jun, 2020
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## Technical Skills

<ul style="list-style-type: none"><li>Programming Languages – Python   R   Java (8)   SQL   JavaScript   HTML   CSS</li><li>Frameworks &amp; Libraries – Tensorflow   Keras   PyTorch   PySpark   Sklearn   Flask   Spring-boot   Angular (JS &amp; 6)</li><li>Methodologies – Agile   Scrum   Data Driven Scrum   MVC</li><li>Cloud &amp; DevOps Tools – Docker   Kubernetes   Google AutoML   AWS SageMaker   AWS CloudWatch   Git   JIRA   Jenkins</li><li>Database &amp; Analytical Tools – Tableau   SQL Server   MS Excel   GNU Octave   JMeter</li></ul>
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## Leadership

<b>NSS Right to Education (IIT Roorkee) –</b> <ul style="list-style-type: none"><li>Lead and organized study sessions for underprivileged children around the university, helping them with their academic work daily for an hour and organised various competitions among them.</li></ul>	2013-2014
<b>NSS Blood Donation Camp (IIT Roorkee) –</b> <ul style="list-style-type: none"><li>Supervised a team of 12 members to organize a blood donation camp in the university campus, collaborating with 5 different organizations and involving more than 400 donors.</li></ul>	Sep, 2014-Nov, 2015