Sushant Gakhar

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EDUCATION

Indiana University Bloomington, USA - School of Informatics, Computing and Engineering

May 2020

Master of Science in Data Science (Current CGPA: 3.783/4)

Ongoing (& Expected) Coursework: Machine Learning, Deep Learning, Artificial Intelligence Systems, Statistical Learning, Bayesian Statistics, Information Visualization, Inferential Statistics, Big Data Management.

Manipal University, India - Manipal Institute of Technology

May 2018

Bachelor of Technology in Information Technology with *Distinction* (CGPA: 7.25/10)

<u>Coursework</u>: Database Systems, Internet Technologies, Artificial Intelligence, Distributed Systems, Data Warehousing and Mining, Neural Networks and Fuzzy Logic, Pattern Recognition

PROFESSIONAL EXPERIENCE

EXL Services, Jersey City

June 2019 - August 2019

Data Science Intern

- Developed a Visual Search engine that utilizes binary representations of images
- Used deep convolutional networks to generate embeddings and accommodated for information loss due to quantization.
- Developed a hierarchical search technique for fast look-up of semantically similar images.

Incedo Inc, Mumbai January 2018 - July 2018

Data Science Intern

- Used recurrent neural networks (GRUs) to detect trending keywords in a news corpus for a given week.
- Devised methods/metrics to shortlist keywords of interest within a news corpus.
- Developed techniques to visualise and gauge popularity of keywords in a news corpus.

Incedo Inc, Mumbai May 2017- July 2017

Analytics Intern

- Introduced graph databases (Neo4j NoSQL) for building knowledge graphs that highlight relationships between firms, their products and customer base, etc; used for presentations.
- Performed sentiment analysis using Natural Language Processing Tools to quantify a user's opinion on a topic using their social media posts.

ACADEMIC PROJECTS

Pose Transfer Spring 2019

- Enabled user to transfer pose of a human from one picture and generate a picture of another human with the same pose.
- Used Pre-trained Neural Networks to detect pose of humans in an image.
- Trained Generative Adversarial Networks to generate images conditioned on a certain posture.

Speech Denoising Spring 2019

• Used Deep Neural Networks that use a noisy audio spectrogram and outputs its cleaned version as a spectrogram that can be converted back into an audio format.

Maps Routing Fall 2018

- Developed heuristics for search algorithms to find a route from one given city to another.
- Effectively dealt with missing coordinates of landmarks encountered while routing.
- Optimised the route based on different parameters like distance and time.

Breast Cancer Predictive Analysis

Fall 2017

- Predicted malignancy of breast tumours given details of breast cancer cells using data from Kaggle.
- Employed various feature selection strategies to reduce the number of features.
- Used popular machine learning models such as SVMs, Random Forest Classifiers etc. with different model selection strategies to make a predictive model and achieved approximately 92% accuracy.

TECHNICAL SKILLS

- Programming Languages: Python, R, Java, bash/zsh, SQL, Objective-C, C/C++
- Popular Libraries: sci-kit learn, Keras, Pandas, Numpy, SciPy, matplotlib, seaborn, Tensorflow, ggplot, Spark, Hadoop
- <u>Design and Simulation Software</u>: MATLAB
- Microprocessors/Microcontrollers: 8085, 8086, ARM
- Web Technologies: HTML, Javascript, Node.js,
- Software suites: git, XCode, anaconda, MAMP stack, Flask, MS Excel, MS Powerpoint, MS Word
- Online Certifications: Machine Learning (Coursera), Deep Learning Specialization (Coursera)

EXTRA CURRICULAR ACTIVITIES

- Developed iOS app for TechTatva '15, the annual Tech event of MIT, Manipal; which hosts multiple talks and competitions related to varying branches of engineering.
- Active member of Linux User's Group, Manipal where I conducted multiple workshops on version control systems, Python programming language, and other popular open source technologies.