SNEHA NAGPAUL

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OBJECTIVE

Self driven entrepreneurial software engineer and data scientist with a background in applied financial statistics, looking to make a social impact with technology.

SKILLS

Languages	Python, SQL, R, C, C++, Java
Libraries	Keras, TensorFlow, PyTorch, Theano, Pandas, Scikit-Learn, NumPy
Tools	Tableau, Git, Jupyter Notebooks, PyCharm
Spoken Languages	English (fluent) , Hindi (fluent) , French (working)

TECHNICAL WORK EXPERIENCE

Data Science Intern - All Traffic Solutions, Herndon, VA July 2017 - August 2017

- Developed time series forecasting models for traffic engineers using Big Data pipelines constructed with Apache Spark.
- Increased revenue by working with Sales and Marketing teams by developing a user interface report by analyzing client activity on the internal software using tools like Tableau and visualization libraries in Python 3 with Jupyter Notebooks.

Graduate Research Assistant - George Mason University, Fairfax, VA January 2017 - June 2017

- Mined massive data sets consisting of raw unstructured articles and cross referenced findings with police data.
- Created a framework for local law enforcement for recommending crime hotspots using spatio temporal analysis.

Graduate Teaching Assistant - George Mason University, Fairfax, VA September 2016 - December 2016

- Assisted with evaluating exams, quizzes and assignments for a formal logic graduate level class at GMU.
- Helped demystify elements of discrete mathematics and foundational concepts to incoming graduate students.

Founder - actuarialscience.in, New Delhi, India January 2013- August 2015

- Reported on Actuarial Science conferences and latest developments in the Indian insurance landscape.
- Suggested governmental policy changes by cross referencing datasets from the Indian Actuarial Body and other data sources.

PUBLICATIONS AND ACADEMIC PROJECTS

From Language to Location using Multiple Instance Neural Networks - SBP, Conference Proceedings, Washington DC (2018)

- Improved prior semi supervised learning approaches by using neural networks for multiple instance learning instead of kernels.
- Applied the method to natural language processing for finding the geographic location of short text data using semi-labelled data.

Cervix Classification: Deep Learning, Computer Vision (2016)

- Practically applied concepts of Transfer Learning in a Deep Learning context for image classification to identify type of cervix for subsequent cancer diagnosis.
- Reached high classification accuracy using architectures like Convolutional Neural Networks and ResNets with Deep Learning libraries such as Keras, Theano and Tensor Flow in Python3 which are optimized for running on GPU CUDA cores with AWS.

Sentiment Analysis for Text Reviews: Natural Language Processing (2016)

- After preprocessing raw text data and employing dimensionality reduction techniques, data were classified and positive or negative using the K-nearest Neighbors classification algorithm.

Recommendation System for Movie Rating Prediction: Collaborative Filtering (2016)

- Given a set of ratings and reviews, a collaborative filtering technique was devised following feature reduction using Truncated SVDs from Scikit-Learn. Content based approaches were used to augment predictions of movie ratings given a user.

EDUCATION

Master of Science - Computer Science - George Mason University (GPA: 3.96) May 2018

Course Work: Formal Logic and Discrete Mathematics, Systems Programming, Analysis of Algorithms 1& 2, Data Mining, Time Series Mining, Object Oriented Software Specifications in Java, User Interface Design

Bachelor of Science - Computer Science - Delhi University, India May 2010

AFFILIATIONS AND EXTRA CURRICULAR ACTIVITIES

Women Who Code, DC Since 2017
Casualty Actuarial Society Since 2015
Institute of Actuaries, United Kingdom Since 2011