Navraj (Navie) Narula

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Education

M.S. in Computer Science and Journalism   May 2018
Columbia University, *New York, NY*
Thesis - Detecting Emotion in Audio Inputs: Coloring Stories with Advanced Sentiment

B.S. in Computer Science and English Education   May 2016
Boston University, *Boston, MA*

Experience

Data Engineering Intern, Axios   June - Aug 2018
New York, NY
Built data pipelines to gather platform engagement data using Python and AWSGlue as a storage framework for ETL tasks. Created and deployed machine learning models with AWS SageMaker. Worked closely with the Director of Data Engineering and received recognition from the CTO upon presenting work.

Artificial Intelligence (AI) Researcher, Creative Machines Lab   Sept - Dec 2017
New York, NY
Designed and implemented a persistence algorithm and an autoregressive model using time-series forecasting to predict future movements of a soft, artificial muscle. Visualized muscle movements pertaining to each time second and load force for continuous datasets.

Software Engineering Intern, Quid   Jun - Aug 2017
San Francisco, CA
Built and deployed website to display info pertaining to Quid's backup system using Docker, Flask, SQL Alchemy, and Python. Examined and unpacked contents of API to create mapping and define settings for indices on Elasticsearch. Wrote test cases to automate checks for an infrastructure engineering task. Presented work and received recognition for delivering outputs of my code to a client.

Teaching Assistant, Columbia University   Sept 2016 - May 2017
New York, NY
Helped students understand control flow, functional design, and complex libraries using Python. Selected as 3 of 10 course assistants to lead lab lectures. Provided additional assistance during office hours.

Data Storytelling Researcher, Boston University   Jan - May 2016
Boston, MA
Designed taxonomy and implemented a relational database in MySQL Workbench to store info on criminal case reversals, worked with faculty member to deliver report on functionality of search and how to perform robust queries, received funding to attend NICAR conference in Spring 2016.

Data Science Projects

Obtaining Cycle Breakpoints and Predicting Next Cycles:
An Analysis of Generative Programming and Time Series Forecasting   Dec 2017

Examining the Language of Eating Disorders in Social Media:
Indications of Anorexia and Obesity in Various Subreddit Forums   April 2017

Randomness vs. Restriction in Markov Models of Natural Language:
An Examination of Haiku-Text Generation   May 2016

Open-Source Contributions

Emotion Audio Classification   Oct 2017 - present
Built software to detect emotion in short speech utterances using Python. Utilized pyAudioAnalysis to perform linear classification based on multi-class categories spanning emotion labels. Extract features such as pitch, volume, and silence using Praat. Working to improve speech classification distinction among gender and races.

Other

Community Chair (Women in Computer Science) - Sponsorship Chair (DivHacks, a diversity hackathon) - Grace Hopper Scholar (Facebook) - Brown Institute Scholar (Columbia Journalism School)