Nick Sawhney

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EDUCATION

NEW YORK UNIVERSITY | 2016-2020

- GPA: 3.87, Magna Cum Laude
- B.A. in International Relations and Computer Science
- Presidential Honors Scholar

SKILLS

ADVANCED KNOWLEDGE

Python, Pandas, Numpy, Data Engineering/Visualization, ETL (Elastic), Data Pipeline Design, MapReduce, Machine Learning, Deep Learning, Cloud Infrastructure (AWS), Natural Language Processing, Causal Regression Design, Geographic Data Analysis, Git, UNIX Shell, Social Media Data Analysis

WORKING KNOWLEDGE

- Web Development, Flask, Django, JavaScript, Go, C

WORK EXPERIENCE

DATA SCIENTIST & SOFTWARE ENGINEER | SKOPOS LABS | JUNE 2019-PRESENT | PYTHON & AWS

- Created python library for transforming price and legislative-impact data to tradeable portfolios and performing long-term stock trading simulation with customizable constraints, prioritizing reusability and flexibility. Used Pandas and Numpy. Tested with unittest and nose.
- Automated ETL process using AWS and Boto3 in Python, ensuring ease of use for multiple teams.
- Developed statistical reporting and visualization tools using Matplotlib, Seaborn, Pandas, and Empyrical for teams optimizing trading strategies and to inform company stakeholders.
- Updated and optimized data pipeline and UX for web product using Pandas, Django, and the Elastic Stack
- Ported codebase from Python 2 to Python 3 and resolved compatibility issues using 2to3 and Six.
- Worked with research team to analyze and predict price shocks that result from government legislation, building tools with Scikit-Learn, Pandas, Numpy, Matplotlib, and Seaborn and performing code reviews.

DEVELOPER | CENTER FOR SOCIAL MEDIA AND POLITICS | FEBRUARY 2019-PRESENT | PYTHON & JAVASCRIPT

- Added customization and architected login and account management system for data pipeline used by social media researchers for labeling topic-specific Tweets using Tweepy, Pandas and MongoDB in Python
- Built system capable of detecting user installation chrome plugin for research purposes (revealing plugin bugs)
- Created tools for logging user behavior using JavaScript

PROJECTS/EXTRACURRICULARS

HONORS THESIS | NEW YORK UNIVERSITY | AUGUST 2019-PRESENT | PANDAS IN PYTHON

HTTPS://NICKSAWHNEY.GITHUB.IO/FARE_EVASION

- Created dataset of fare-evasion arrests from publicly available arrest records, filtered geographically and combined with census demographic data using Pandas, Geopandas, Numpy, and Shapely in Python using the MapReduce design philosophy.
- Interactively visualized patterns in crime and police activity in New York City using Pandas, Seaborn, Matplotlib, and Folium in Python, and Leaflet.js in JavaScript.
- Built difference-in-differences and regression discontinuity models with fixed and random effects in order to analyze effects of New York Justice Department policy on arrests using Scikit-Learn (Python), R, and Stata.

NATURAL LANGUAGE PROCESSING RESEARCH | NOVEMBER 2019-PRESENT | KERAS IN PYTHON

- Built and tuned convolutional neural networks, support vector machines, and word embedding models using tensorflow, keras, and genism in Python to perform better than average humans for classifying fake news.
- Engineered tf-idf vectors and word2vec embeddings for analysis of textual indicators of misinformation using numpy, pandas, and sklearn

GENERAL MANAGER, BUSINESS DIRECTOR, HOST | WNYU RADIO | SEPTEMBER 2016-MAY 2020

- Led management team to conduct daily station operations, engage with community, create events and networking opportunities. Managed station finances, reimbursements, and set yearly budget.
- Hosted Weekly Refresh, a technology news podcast, for 200+ live episodes