Nick Italiano

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Education

- **Manhattan College** — Bronx, NY
  Master of Science in Applied Mathematics– Data Analytics — *August 2015 – Current*
- **Manhattan College** — Bronx, NY
  Bachelor of Science in Mechanical Engineering — *January 2011 – June 2015*

Experience

- **Music Hackathon/Music Community Lab** — Manhattan, NY
  Freelance Data Engineer — *August 2019 - Present*
  - **ZooTweet**: Developed Real-time Twitter Sentiment Analysis Web Application for the Music Hackathon/Music Community Lab organization, who asked for assistiance in rebranding under one Twitter account. Heroku and Python–using Dash with Plotly– were integrated with *Natural Language Processsing* methods and tools.
  - **Enhanced Brand Improvement and Topic Tracking using Apache Kafka**: A "big data" version of ZooTweet that leverages Apache's data processing frameworks with Python. This app highlights Apache Kafka's scalability, which is already used in real-time Twitter data streaming apps.
  - **Arctic Code Vault Contributor**: Contributed project repository *mcl-mh-brand-sentiment-analysis-app* to the 2020 GitHub Archive Program which will be stored in Svalsbard, Norway for the next 1000 years.
- **Self-employed** — Staten Island, NY
  Data Scientist& Data Engineer — *January 2015 - October 2016*
  - **Data Consumption**: 3-4 years building big data infrastructure–REST APIs, Reccomendation Systems, and Analytical Web Apps– to support Music Information Retrievel research and app development. Agile(Scrumban), *CD/CI(continuous development/integration)* and automated testing methods were used.
  - **Data Warehousing**: Administered the data modeling, schema design and management of AWS(Amazon Web Services) S3, Athena and Redshift. Created Python module that schedules back ups of ZooTweet's databases into S3. Airflow and Luigi were integrated to enable daily data consumption via data piplines, and ETL injections into Redshift.
  - **Recommendation Systems**: Created *POC(Proof of Concept)* recommendation system that enhances the musical content discovery process. The web app uses collaborative filtering, with Spotify's streaming API, and worked in both testing and scalability tuning.
- **Manhattan College** — Bronx, NY
  Graduate Research Consulant — *October 2015 - July 2016*
  - **Big Sagebrush Data Visualization**: Developed data visualization for biological researchers at Manhattan College. Prior attempts to create an illustration depicting the unique growth of *Artemisia tridentata* (Big Sagebrush) were unsuccessful.
  - **SIAM Annual 2016 3D Research Presentation**: Presented research and demo in 3D digital format at the SIAM Annual 2016 National Mathematics Conference.
- **Con Edison of New York** — Queens, NY
  Graduate Engineer/Analyst Aide — *March 2013 - May 2016*
  - **High Bay LED Retrofitting Project**: Managed Astoria Transformer Shop's LED retrofitting project that saved approximately $12,400 per year.
  - **Underground Transformer Unit Key Performance Indicator**: Created a new *KPI (key performance indicator)* that prompted 3 unit classes (approximately 30 units per annual) to be decommissioned after Q3 meeting with the VP of Electric Services.

Projects

- **Cryptocurrency Dashboard**: POC multipage, realtime and interactive dashboard app with engineering and analytics services using Dash, HTTPS login protocol and data streaming in realtime.
- **Dotfiles using Mackup**: Automated Macos setup and configuration using a dotfiles github repository, which holds my personal dotfiles(root level files designated by "." in file name) that are stored into Dropbox via Mackup.
- **Big Data Developer Env**: Data science and engineering environment based on docker and AWS, with standardized Python, Java and R dependencies. Reviewed and adopted the core libraries that are shared by all data professionals.