

Alexander K. Bogdanowicz

Data Science Undergrad

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RESEARCH & PROJECTS

Dynamic Topic Modeling of Urban Geo-Topics

Research Assistant

📅 Oct 2019 – Present 📍 Shanghai, CN

- Combined geographic proximity (haversine) and active LDA-based semantic similarity to extract topics and detect urban real-estate events
- Built a custom pipeline to ingest, preprocess, transform, & stream a large dataset of geo-tagged tweets
- Implemented vector encodings (one-hot, TF-IDF, & word2vec) and clustering algorithms (NNMF, LSA, & LDA) with grid search for hyperparameter tuning

Predictive Analytics for Spotify Brand Mentions

Graduate Big Data Science Course Semester Project

📅 Jan 2019 – May 2019 📍 New York, NY

- Analyzed the daily occurrence of luxury brand mentions in Genius web-scraped lyrics based on Spotify's top 200 most streamed songs over 1 year
- Utilized Stanford Java Core-NLP for lemma generation, LDA for topic generation, and ARIMA to predict brand popularity via Google Trends Results

Cryptocurrency Asset Classification

Dean's Undergrad Research Fund Project

📅 Sep 2018 – May 2019 📍 New York, NY

- Modeled an ANN for Asset Classification (e.g. Stock, Currency, Commodity, Debt) resulting in an 80% testing accuracy for currency classification
- Developed a SVM for predicting asset class price direction (20-days), trained on volatility, momentum, and GARCH estimates of variance
- Discovered that Bitcoin behavior is best predicted using ANNs trained on traditional currencies with inconclusive results in regards to SVMs

WORK EXPERIENCE

PwC Advisory

Data & Analytics Intern

📅 Jun 2019 – Aug 2019 📍 New York, NY

- Implemented an automated SQL database quality evaluation process utilizing a Python ORM to determine DB statistical properties (Fin. Transactions DB)
- Developed custom selenium-based solutions to quickly automate rule-based web app interactions for financial crimes investigators
- Spearheaded discussions with key account stakeholders regarding opportunities for NLP and ML integration within PwC's Financial Crimes Unit

Morgan Stanley

Risk Mgmt. Analyst

📅 Nov 2018 – May 2019 📍 New York, NY

- Part-time role (22hrs/week) while enrolled full time in undergrad program
- Analyzed internal vendor databases to identify cross-unit data discrepancies and develop metrics for visualizing and conveying data quality to MS C-Suite
- Performed associate level negative news screening, investigative functions, and technical up-skilling of bank staff and management

EDUCATION

New York University

Double B.S. Data Science, Finance

📅 Class of 2020 📍 Shanghai, CN

- Cumulative GPA: 3.75/4.0

Relevant Coursework

Graduate Big Data Science Databases
Machine Learning Info Visualization
Software Engineering Bus. Analytics
Data Structures Econometrics
Multivariable Calculus Linear Algebra

EXTRA-CURRICULARS

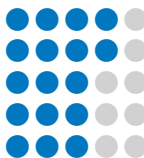
🌐 **TAVTech Data Science Fellowship**
Intensive 5-week Tel-Aviv based fellowship focusing on cutting-edge AI and Big Data Science advancements

🏆 **Hyperloop Global Challenge Finalist**
Pitched the Hyperloop-One Business Strategy Team on the feasibility of Chinese market entry based on a comprehensive study of IP Law

🏛️ **Founder & President TAMID Group**
Coordinated and co-led thorough Consulting with Israeli firms and a membership of 40+ students (Voted NYU Shanghai's Best Club 2017-18)

LANGUAGES

Python & Java
SQL/SQLAlchemy
R
JavaScript
HTML/CSS



SKILLS & TECHNIQUES

Pandas NLTK Scikit Learn Flask
TensorFlow CoreNLP D3.js LaTeX

Classification & Clustering CRISP-DM
Topic Modeling Volatility Modeling
Data Vis. in D3.js Command Line
Back-End Flask Dev. Git Version Cntrl.