

Bogdanowicz Alexander

SOFTWARE & DATA ENGINEER

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Education

New York University Shanghai

B. ENG. DATA SCIENCE & FINANCE DOUBLE MAJOR

Cumulative GPA: 3.77/4.0

Shanghai, CN

Aug 2016 - May 2020

Skills

Packages Apache Spark Pandas NumPy Tensorflow NLTK D3.js Git Flask Scikit-learn SQLAlchemy SciPy Scrapy
Languages Python Scala R SQL Slurm HPC Java JavaScript C HTML/CSS Unix Bash \LaTeX
Techniques Data Visualization Data Engineering Databases A/B Tests Statistical Models Classification Topic Modeling NLP

- Fluent in English & Polish, Conversational in Mandarin Chinese
- Over the last 4 years, I've had the opportunity to work and perform research in 3 countries across 4 industries
- Pitched the Hyperloop-One Business Strategy Team on the feasibility of Chinese market entry based on a comprehensive study of IP Law
- Co-Founded the first international business club (Voted NYU Shanghai's Best Club 2017-19) and presided over a membership of 40+ students

Work Experience

New York University

ADJUNCT RESEARCH ASSOCIATE OF DATA SCIENCE

Shanghai, CN

Jan 2019 - Current

- Actively pursuing Dynamic Topic Models to help diagnose areas of the US worst infected by the COVID-19 Pandemic
- Developed a reusable pipeline for data acquisition, preprocessing, and analysis for High-Performance Computing
- Acquired, structured, preprocessed, & analyzed 300 million+ tweets, utilizing a custom LDA model to detect topics actively over time
- Implemented vector encodings (one-hot, TF-IDF, word2vec) and clustering algorithms (NNMF, LSA, LDA) with grid search for parameter tuning

PwC Advisory

DATA ANALYTICS - INTERNSHIP

New York, NY

Jun - Aug 2019

- Implemented an automated SQL database quality evaluation process utilizing a Python ORM to determine DB statistical properties
- 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

AML RISK MANAGEMENT - ANALYST

New York, NY

Oct 2018 - May 2019

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

Projects

HealthHub - Healthcare Platform <documentation @ alexkbog.com>

FULL STACK DEVELOPER

Shanghai, CN

Sep - Dec 2019

- Designed, developed, and tested a web platform for patient-clinician interaction with a collaborative agile team using Python/Flask, Redis, Celery, and HTML/CSS/JS.
- Implemented the back-end for product features including: appointment scheduling, social forum, file storage, medical records storage, transaction logging, and automated reminders for checkups and prescriptions.

Predictive Analytics for Spotify Brand Mentions <code + notebooks @ github/akbog>

GRADUATE BIG DATA SCIENCE COURSE SEMESTER PROJECT

New York, NY

Jan - May 2019

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

Cryptocurrency Asset Classification <code + notebooks @ github/akbog>

DEAN'S UNDERGRAD RESEARCH FUND PROJECT

New York, NY

Sep - Dec 2018

- Modeled an ANN for Asset Classification (e.g. Stock, Currency, Commodity, Debt) resulting in an 80% testing accuracy for currency classification
- Discovered that Bitcoin behavior is best predicted using ANNs trained on traditional currencies with inconclusive results in regards to SVMs