

YUCHEN (ALICE) ZHANG

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EDUCATION

University of Pennsylvania

Philadelphia, PA

- Master of Science in Engineering, Data Science August 2020
- *Relevant Courses:* Fall 2020 – Programming Languages and Techniques, Linear Algebra & Optimization, Machine Learning; Spring 2021 – Computational Linguistics (NLP), Big Data Analytics, Deep Learning for Data Science

Emory University, GPA 3.6/4.0

Atlanta, GA

- Bachelor of Science, Quantitative Sciences, Political Science Track August 2013 – May 2017
- Bachelor of Business Administration, Information Systems & Operations Management (Spring 2016 Dean's List)
- *Relevant Courses and Activities:* Statistical Learning, Time Series Analysis, Forecast & Predictive Analytics, Probability & Statistics, Advanced Statistics, Data Analytics & Visualization (+ TA), Game Theory, 2015 Emory DataFest Competition (Honorable Mention)

University of Edinburgh, Semester Exchange

Edinburgh, UK

- *Courses:* Risk Management, Quality Management, Management of Technology September 2015 – December 2015

Programming and Other Skills: Python (1-year work: pandas, scikit-learn), R (3-year work: tidyverse, dplyr, ggplot2), SQL, Git, Web Scrapping, Scrapy/Scrapyd, Linux/ Command Line, Jupyter, Google Colab, Stata, SAS (Basic), MS Office, FactSet, Bloomberg

PROFESSIONAL EXPERIENCE

Advanced Continuing Education Association

Boston, MA/Remote

Data Science Intern

June 2020 – August 2020

- Explored and improved course recommendation engines through research and **NLP** techniques (word2Vec, bio2Vec, TF-IDF)
- Built scrapping **pipelines** (Scrapy, Scrapyd, SQL, Crontab, Git) for 3 spiders and scraped 1,000+ physician continuing education courses (Selenium, BeautifulSoup) into **SQL database**
- Researched on requirements and detailed regulations on continuing education to help **design data architecture**
- Automated certificate checking process through data matching pipelines (Python, SQL)

NERA Economic Consulting

New York City, NY

Analyst, Associate Analyst, Research Associate – Securities & Finance Practice

July 2017 – June 2020

- Conducted quantitative and qualitative **research/investigations** to help produce defensible expert opinions in securities & finance litigations such as insider trading, naked short selling, bond flipping, options trading, lottery fraud, and class actions
- **Analyzed complex datasets** (up to 10TB) and produced **data visualizations** using MS Excel, Python, R, Stata, and SAS
- Performed **statistical analysis** (regression analysis, hypothesis testing, etc.) and communicated results to different **stakeholders**
- Created **text analysis** (market sentiment/content analysis) on news and analyst reports for 5+ cases
- Routinely **cleaned, manipulated, wrangled, and analyzed** raw data in detail to conduct meaningful and accurate analyses
- Constructed but-for scenarios through economic modeling, trading models replications, simulations, and profit loss calculations
- Estimated 10+ securities class action (section 10b-5, 11) damages using event studies, MSMT model and predictive analysis on past settlements (up to billions of dollars)
- Drafted expert **reports** and rebutted logical fallacies in opponent expert reports

Aetna, Inc.

Hartford, CT

Finance Leadership Program (Rotational), Internal Audit Rotation

June 2016 – August 2016

- Tested and evaluated control effectiveness for 4 operations audits and 18 SOX annual audits through research and investigations on divisional excel records, system fallout reports, audit reports, and various communication records
- Created an automated process flow using Alteryx to detect reimbursement fraud for Internal Audit data analytics team
- Won internship capstone competition by creating effective solutions for student health business unit

PROJECTS, LEADERSHIP EXPERIENCE, AND VOLUNTEERING

Ongoing Personal Project – Class Action Analysis Using Class Action Database

- Scrapped summary case table, case information, and downloaded documents under First Identified Complaint (FIC)
- Analyze the summary case table for recent trends and insights; produce ranking tables and graphs (Ongoing)
- Train models using ML/NLP techniques on the FIC documents for various purposes (Ongoing)

Statistics Without Borders

Remote

Delivery Quality Assurance

October 2019 – Present

- Evaluate and ensure quality, accuracy, and timeliness of the project deliveries to clients
- Participate in SWB internal project taskforce to create and evaluate internal research projects

FreshSight Student Consultant & Edinburgh University Trading and Investment Club

Edinburgh, UK

Student Consultant & TMT Sector Stock Pitch Group Leader

September 2015 – December 2015

- Produced a comprehensive report on client competitiveness and strategies to improve
- Pitched a stock through presentation after building a 10-year growth-based cash flow valuation