RYAN HUANG

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EDUCATION

The University of North Carolina at Chapel Hill - Chapel Hill, NC

July 2022 - May 2025

Bachelor of Science, Computer Science; Bachelor of Arts, Economics; Business (minor)

- GPA 3.789
- Clubs: Carolina Analytics & Data Science Club, Carolina Economics Club, UNC Finance Society
- Coursework: Discrete Mathematics; Linear Algebra; Data Structures; Data Models and Inference; Multivariable Calculus, Econometrics, Intermediate Microeconomics, Systems Fundamentals, Foundations of Programming

EXPERIENCE

The University of North Carolina at Chapel Hill – Chapel Hill, NC

February 2023 - July 2023

Undergraduate Research Assistant; Economics

- Developed Python-based data scraping method for The Wayback Machine to retrieve historical data.
- Applied NLP techniques to categorize global autonomous vehicle (AV) startups.
- Utilized Bag of Words, TF-IDF, and Word Embeddings for diverse feature extraction.
- Streamlined clustering with unsupervised methods: PCA for dimension reduction, K-Means for effective clustering.
- Implemented advanced data preprocessing: stop word elimination, stemming/lemmatization, adept tokenization.
- Utilized OpenAI API to categorize companies based on extracted website text characteristics.
- Employed advanced topic modeling (LDA or BERTopic) for interpretation and cluster naming.
- Introduced supervised text classification: data prep, model selection/training, comprehensive evaluation.
- Researched algorithms Logistic Regression, Naïve Bayes, SVM, Random Forest, Deep Learning (BERT).
- Conducted regression analysis on policy dynamics' impact on startup entry.
- Identified main company categories: sensor tech, robotics, and vehicles.

The University of North Carolina at Greensboro - Greensboro, NC

August 2022 - Present

Research Assistant; Finance, Computer Science

- Utilized Pandas to meticulously refine and organize FEC data, focusing on names and companies.
- Devised a novel metric to quantify political inclinations, normalizing contributions to Democrat and Republican candidates over a 2000 to 2021 timeline.
- Spearheaded the extraction and identification of 1500+ hedge fund managers and 20,000+ executives from supplemental datasets based on cleaned FEC data.

LEADERSHIP AND COMMUNITY INVOLVEMENT

IDEAL Get Ready for Research Workshop - Chicago, IL

June 2023

UNC Chapel-Hill Representative

- Attended conference and represented UNC along with another individual
- Engaged in discussions on data science, math, CS, EE research areas with faculty, postdocs, and grad students.
- Presented session on the application of causal inference using neural networks for policy evaluation during COVID-19
- Interacted and networked with individuals from various Top 25 schools such as Duke, UChicago, and Northwestern

Leukemia and Lymphoma Society – Greensboro, NC

June 2021 - April 2022

Students of the Year Candidate (Team Leader)

- Raised over \$10,000 over a four month period implementing a comprehensive fundraising strategy
- Conducted outreach to potential corporate donors such as Syngenta, Qorvo, and Volvo Group.
- Organized events in the community to fundraise locally with a 5k run and bake sale.
- Utilized various marketing and graphics methods to promote fundraising efforts and engage with supporters

ADDITIONAL INFORMATION

- Fluent Mandarin
- 5+ Years' Experience with Python
- Intermediate Proficiency with HTML/CSS, Machine Learning
- Basic Proficiency with SAS, R, MATLAB, Tableau, JavaScript, Linux, and Database Management
- UNC Symphony Band, Basketball, Swimming, Cooking

Version: August 10, 2023