

Ayina Anyachebelu

ayinaanyachebelu@gmail.com || +1 615-652-7088 || [yinaanyachebelu.github.io/](https://github.com/yinaanyachebelu) || <https://www.linkedin.com/in/ayina/>

EDUCATION

University College London, Department of Geomatic Engineering
MSc in Geospatial Data Science

London, UK
Jul 2024

- **Thouon Award Winner**, Full tuition covering master's program in the UK plus £35,000 yearly stipend
- **Relevant Coursework:** Databases and Data Management, Spatio-Temporal Data Mining, Machine Learning, Deep Learning for Edge Devices, Statistics and Geocomputation, Web and Mobile Apps, Agent-Based Modelling

University of Pennsylvania, Huntsman Program, GPA: 3.99/4.0

Philadelphia, PA
May 2022

B.S. Applied Economics (Concentration in Analytics) and B.A. International Studies; Minor in Spanish

- Graduated Summa Cum Laude and Phi Beta Kappa, Dean's Award for Academic Excellence, Rhodes Finalist, Marshall Finalist
- **Relevant Coursework:** Machine Learning for Remote Sensing, Econometrics, Linear Algebra, Probability, Big Data Analytics

SKILLS AND INTERESTS

- **Python:** numpy, pandas, geopandas, scikit-learn, Tensorflow, keras, PyTorch | **R:** dplyr, tidyr, shiny, caret, fixest, mlr3
- **Data Visualization and Databases:** SQL, Python, Snowflake, BigQuery, R (ggplot2), Tableau, Excel
- **Web, Mobile and Edge Applications:** Javascript, Node.js, HTML/CSS, Leaflet, jQuery, Rest APIs, Docker, Arduino
- **Geospatial Analysis and Mapping:** Python, R, QGIS, Google Earth Engine, Satellite Imagery, Spatial Statistics and Econometrics

WORK EXPERIENCE

Discover Financial Services

Riverwoods, IL

Data Science Intern, Enterprise Fraud and Collections Modelling Team

June – Aug 2023

- Led end-to-end development of natural language processing initiative, encompassing data processing, feature engineering and model training on various machine learning and deep learning algorithms leveraging 100M+ rows of customer service chat text transcripts to predict customer charge-off probabilities resulting in ~1% performance lift in company's existing model
- Conducted comprehensive exploratory analysis on transcript data, employing visualization techniques and NLP tools to identify significant trends and patterns including meticulously documented Python and SQL scripts, ensuring seamless analysis replication
- Effectively communicated findings and actionable recommendations to the team and upper management for collaborations with data engineers to improve transcript data pipeline and seamless integration of model predictions into company's production environment

Microsoft Research

Redmond, WA

Computing Research Intern, Project Eclipse

May – Aug 2022

- Ideated and conducted empirical study to highlight the effectiveness of team's novel real-time network of hyperlocal sensors
- Utilized python for data collection, wrangling and geographical feature engineering including self-generated dataset of Chicago fires from Twitter, Project Eclipse public API (first API user as proof of concept) and hourly meteorological data
- Implemented econometric models in R to identify spatial and temporal causal effect of house fires on pollution in Chicago
- Presented results to Illinois Environmental Protection Agency, explaining implications for public health and future sensing work
- Published in *Nature Scientific Reports*: Anyachebelu, A., Cabral, A., Abdin, M.I. et al. Characterizing the effects of structural fires on fine particulate matter with a dense sensing network. *Sci Rep* 13, 12862 (2023). <https://doi.org/10.1038/s41598-023-38392-3>

J.P. Morgan Chase & Co.

New York, NY

Trading Summer Analyst

June – Aug 2021

- Conducted analysis on relationship between social media mentions and quarterly revenues for video game companies using scraped Twitter posts to provide content used by Media Equity Head Researcher for creative published report
- Performed geospatial analysis on investments in Python saving 20+ hours to support valuation research for distressed debt team
- Completed 10-page investment recommendation report on a movie theater stock based on analysis of historical box office trends

Suyo

Medellin, Colombia

Business Data Intelligence Intern

June – Aug 2019

- Designed online customer surveys (taken by 1000+), expediting data collection and community outreach to expand market research
- Cleaned and validated dataset of 100K+ readings from 2K+ clients and performed analysis to discover property rights trends
- Developed customer profiles and unique affordable customer payment plans based on socioeconomic analysis that would save team hundreds of hours per year in customer services and subsidize cost for low-income resident customers by 15-25%

Wharton School of Business – Department of Statistics and Data Science

Philadelphia, PA

Teaching Assistant (2 courses)

Aug 2021 – May 2022

- Demonstrated mentorship and fostering of an inclusive, supportive learning environment as a teaching assistant for two prominent courses, "Data Science for Finance" and "Honors Statistics," engaging with a total of 80 and 60 students, respectively
- Led interactive weekly lab and recitation sessions and conducted 3-hour office hours to enhance understanding of concepts
- Meticulously grading homework problem sets and exams on a weekly basis, providing constructive feedback to students to enhance their understanding of statistical concepts and data science methodologies