Allison Xia
zx2482@cumc.columbia.edu | LinkedIn | 413-425-3534 | New York, NY

EDUCATION

Columbia University   New York, NY

M.S. in *Biostatistics*   expected May 2025

- GPA: N/A
- Relevant Coursework: Probability, Data Science, Biostatistical Methods

Smith College   Northampton, MA

B.A. in *Computer Science* and *Statistical & Data Science*   May 2022

- GPA: 3.68/4.00
- Honors: Dean's List 2018-2019
- Relevant Coursework: Machine Learning, Data Science Statistics, Data Structure, Visual Analytics

SKILLS

- Programming Languages: Python, R, Scala, Java, C++, JavaScript, HTML, CSS
- Big Data & Machine Learning: Hadoop, Spark, Python (eg, scikit-learn, numpy, pandas, matplotlib, PyTorch)
- Data Science & Miscellaneous Technologies: Data science pipeline (cleansing, wrangling, visualization modeling, interpretation), Statistics, R Shiny, Hypothesis testing, OOP, APIs, Excel, Git

EXPERIENCES

Capstone - Data Analyst Intern, **Flatiron Health**, New York, NY   Sep 2021 - Dec 2021

- Developed an R-Shiny-based interactive dashboard that enables clients to critically assess a deep learning model that predicts whether patients have received a new advanced cancer medication
- Constructed a user-configurable interface for adjusting model thresholds from 0 to 1 and selecting cohorts, enhancing the dashboard's flexibility and usability
- Implemented real-time, dynamic updates to the dashboard in response to user-defined inputs, ensuring immediate feedback and analysis
- Formulated a comprehensive set of performance metrics, including both overall and stratified metrics, to identify variations in model performance across different patient subgroups

Data Science & Machine Learning Intern, **JETFLOW**, Nanjing, China   July 2021 - Aug 2021

- Collaborated in a team of 15 to create an AI-based highway patrol system using Spark
- Wrangled 10TB of traffic data stored in a Hadoop Distributed File System (HDFS) using Scala, enabling the training of a traffic flow prediction model

PROJECTS AND LEADERSHIP

Preliminary Real-Time AI-Assisted Aiming System for FPS Game   March 2022 - May 2022

Course: Computer Vision

- Implemented a preliminary real-time AI aiming assist for the popular FPS game, Apex Legends, using the object-detection model YOLOv5.
- Independently collected and annotated a comprehensive dataset comprising 3,000 high-quality images to train the deep learning model
- Trained the model on a local machine equipped with an NVIDIA RTX3070 GPU, achieving a precision of 0.8 and a recall of 0.65 at a 0.5 confidence threshold.

Content Creator   May 2022 - Present

- Producing high-quality video contents including study tips, opinion pieces, lifestyle vlogs
- Grew the follower base to 180,000 in just 18 months, demonstrating exceptional initiative, stress resistance, and time management skills