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Jason **Xu**

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Education

Tufts University | Medford, MA   *August 2019 - May 2023*
- GPA: 3.90/4.00 (Deans List)
- School of Arts and Sciences, Mathematics and Computer Science Majors

Shanghai American School | Shanghai, China   *August 2014 - July 2019*
- 3.90/4.00 GPA, Math Club President, Varsity Basketball

Work Experience

Data Analytics Intern | Dormify   *June 2020 - August 2020*
- Used Google Analytics, Search Console, and Cloud Platform to measure impact of SEO changes, understand social media reach, and identify changes in customer behavior due to COVID-19.
- Designed a web scraper that collected competitor pricing data which aided in competitive pricing analysis as well as product design.
- Leveraged BigQuery, JupyterNotebook, and Pandas to fulfill daily data requests from Marketing, Product, and Site.
- Performed t-tests on various A/B tests to determine if the results were statistically significant.

Grader | Art of Problem Solving   *February 2020 - Present*
- Held an online, part-time job at an online school targeted towards middle school and high school students interested in Competitive Mathematics and Programming.
- Graded and provided extensive feedback on Python and Math homework submissions, responded to students' forum posts, and modified other graders' homework feedback before they were released back to students.

Intern | Blueprint Education   *June 2019*
- Collaborated with Directors and Instructors to aggregate student mock exam data into a single Excel file using Visual Basic.
- Created auto-updating score reports that displayed trends regarding location, gender, age, and number of mock exams.

Projects

Spotify Genre Classifier   *June 2020*
- Trained a multimodal machine learning model to classify music genre using image, lyric, and audio data.
- Reduced 64x63x3 RGB representation of album covers to 652 features using randomized principal component analysis while preserving 95% of variance.
- Applied a fast Fourier transform on audio data and TF-IDF on lyrical data to vectorize samples before fitting both to a random forest classifier.

Brown Datathon | Wiki Atomic Edits   *February 2020*
- Given a data set on Wikipedia edits with the original sentence, the inserted phrase, and the final sentence.
- Used Jupyter-Notebook, Scikit-Learn, NLTK, to create a Machine Learning model that predicted where the phrase would be inserted in the original sentence to win the Creativity Award.

JumboCode | Just-A-Start YouthBuild   *August 2019 - Present*
- Developed the front-end interface of web application for Just-A-Start YouthBuild, a nonprofit organization aiming to educate those who have dropped out of traditional high school.
- Learned HTML, CSS, React.js, and Git to implement project designers' admin and user interface prototypes.

Freelance Coding | Topcoder   *June 2018 - Present*
Proximity Hazard Detection
- Used Python and OpenCV on dash cam footage from a garbage truck to assess hazard level by identifying truck direction, bin lifter movement, and pedestrian movement.
- Finished 3$^{\text{rd}}$ out of 142 registered participants in 20-day long online hazard detection competition.

Skills

Languages	Python, C++, SQL/BigQuery, HTML, CSS, VBA, Java, JavaScript
Other	Pandas, BeautifulSoup, Scrapy, D3.js, Scikit-Learn, React.JS, Git, Flask
Coursework	Linear Algebra (A+), Discrete Mathematics (A+), Data Structures (A), Calculus III (A), Introduction to Computer Science (A+)