JEFFREY MA

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EDUCATION

Yale University New Haven, CT
B.S. in Computer Science and Mathematics (Expected 2022)
GPA: 3.96

Relevant Coursework: Discrete Mathematics, Probability Theory, Theory of Statistics, Linear Algebra, Data Exploration, Vector Analysis, Data Structures, Abstract Algebra

PROFESSIONAL EXPERIENCE

dcyphr, Inc. *October 2019 – Present*
Founder
- Founded a startup that aims to distill academic literature to make it more accessible to the public and more efficient for researchers.
- Built a wiki platform in Flask/PostgreSQL and HTML/CSS/JS and deployed on Heroku and AWS (currently indexed 300 articles).
- Developed a human-in-the-loop NLP pipeline by writing data preprocessing scripts and wrapper for deployment and reinforcement in Python.
- Spearheaded automation of paper distillations by fine-tuning an NLP model using ACCESS tokens on custom dataset.
- Grew to 400 active weekly users through social media marketing, A/B testing, and building an external newsletter.
- Researched and created psycholinguistic guidelines to reduce reading time and increase readability of published articles.

Cognitive & Neural Computation Laboratory *October 2019 – Present*
Research Assistant
- Generated artificial worlds using Pybullet and Blender to create stimuli dataset for behavioral studies by writing Python and shell scripts.
- Modeled data from behavioral experiments with generative models using DeepSDF shape representations in Julia.
- Assisted in designing the behavioral stimuli, causal graphs, and generative models.

Visionairy Health, New Haven, CT *October 2018 – May 2019*
Data Analyst
- Prepared and processed chest radiograph data to train a machine learning model to diagnose various respiratory diseases.
- Annotated ~10,000 examples for the model.
- Worked closely with engineering team to understand how data processes affects our model.

Yale New Haven Hospital Vascular Surgery, New Haven, CT *October 2018 – May 2019*
Research Assistant
- Designed and conducted clinical experiments to test thermal photography as a diagnostic tool for vascular surgery patients with PAD.
- Processed captured heat maps to quantifiable data points.
- Analyzed data using simple linear regression and statistical tests to determine efficacy of the diagnostic tool.
- Shadowed surgeons in the vascular surgery department to gain a strong understanding of multiple surgical procedures.

Roosevelt Institute, Yale University, CT *October 2018 – May 2019*
Research Associate
- Conducted research on property tax policy in New Haven and surrounding neighborhoods to analyze the impact of racial bias.
- Collected and analyzed property tax data using R to perform linear regression and tests of significance.
- Presented research and analysis during meetings to help coordinate decisions of future steps.

Regeneron Pharmaceuticals, Tarrytown, NY *June 2016 – August 2018*
Research Intern
- Designed scientific projects that model rare diseases *in vitro* based on genetic associations identified by literature and internal studies.
- Performed wet lab experiments including cell culture, RT-PCR, Western blot, co-immunoprecipitation, etc.
- Interpreted data in a rigorous manner using quantitative evidence and statistical backing to identify next steps for drug development.
- Presented results to colleagues that clearly outlines the motivation, rationale, and conclusions of the study.
- Attended training seminars on GWAS, machine learning, and drug development in the pharmaceutical industry.

SKILLS/CERTIFICATIONS

- Proficient in Python, SQL, JavaScript, Racket, HTML, CSS, and R.
- Familiar with C, Haskell, Blender, Swift, and Julia.
- Working proficiency in Spanish and Mandarin.