Jerry Zhou

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Technical Skills: Python, Java, OpenCV, HTML/CSS, Microsoft Excel, Powerpoint, Word, Jupyter NoteBook, JavaScript, YouTube Content Creation, DrRacket, ReasonML, Scikit-Learn, Tensorflow, Keras, Azure, Typescript, NextJS, TailwindCSS

EDUCATION

Brown University Bachelors of Science in Applied Math and Computer Science **2024-2027**

- Clubs and Activities: Chief Technology Officer at Brown's Socially Responsible Investment Fund, Full-stack developer at Brown's Web Dev Team, Problem Writer for Brown's Math Olympiad, Business Team at Fiction For Kids, Web Developer Board member at Brown's Political Review, Communications Officer at Infectious Disease Society Magazine
- Relevant Coursework: CSCI 17, CSCI 1800, APMA 350, APMA 360, Math 520, CSCI 200, APMA 1160
  Unweighted GPA: 4.0

WORK EXPERIENCE

Fermi National Accelerator Laboratory | Conference Proceedings | Abstract | Poster **June 2023 - August 2023**

Software Engineering Intern at Deepskies Lab Batavia, IL

- Simulated Double Source Planar Lensing and Einstein Rings with varying redshifts and resolutions via Deelenstronomy to create a data set for classification learning.
- Co-authored an abstract about our simulations that was published into the QuarkNet database. It was presented at the 2023 Quarknet Teachers Workshop and accepted for an oral poster session at the 2023 American Geophysical Union Conference.

Ohmium International, Inc **February 2023 - January 2024**

Paid Remote Data Science Intern Remote

- Calculated performance metrics (rate of production, rate of depreciation, efficiency) from Hydrogen Electrolyzer data in Excel. Supervised under Christos Mimikopoulos (VP of Corporate Strategic Pricing).

University of Michigan | Final Evaluation | Research Paper **February 2021 - July 2022**

Machine Learning/Cybersecurity Research Intern Remote

- Conducted a literature review regarding the potential for blockchain technology to enhance cybersecurity protection for K-12 school websites and online campus security.

University of Illinois Chicago, College of Engineering | Presentation | Conference | Code **June 2021 - Present**

Biomedical Computation Research Intern Chicago, IL

- Developed an aggregate detection program using image convolution, erosion, LUT Transformations, thresholding, and coordinate analysis to determine the centerline of lab-designed microvessels.
- Wrote a 1st-authored paper that is published in Springer's LNCS book and accepted for an oral presentation at the 2023 International Symposium on Visual Computing at Lake Tahoe.

University of California, Los Angeles, Samueli School of Engineering **June 2023 - August 2023**

Computational Chemistry Research Intern Remote

- Developed a Neural Network, Support Vector Machine, and Gradient Boosting Algorithm via Jupyter Notebook to predict the Power Conversion Efficiency of different molecules based on their Simplified Molecular Input Entry System (SMILES)

LEADERSHIP EXPERIENCE

Assistant Head of Data Analysis at the Stanford Neuroscience Journal Club | Stanford JClub **2023 - 2024**

- Structured google forms for both members and presenters, disseminated post-reflection surveys, tracked attendance on google spreadsheets, and analyzed audience statistics alongside Dr. Odette Harris and Dr. Reena Thomas (club sponsors).

YouTube Educational Content Creator and Partner | Channel **2020 - Present**

- Taught Competitive Math, Calculus, Algebra, and Pre-Calculus, garnering over 4K subscribers and 300K views.

Cofounder of Gnomon Learning, a Tutoring Service for K-12 Students | Gnomon Learning **2020 - Present**

- Created a student-led organization (20+ team) that tutors AMC, AP testing, and SAT preparation for elementary, middle, and high school students. Currently partnering with the Naperville Public Library and Aurora Public Library.

Brown Venture Prize Finalist | Public Announcement | Brailleo Website | Live Pitch **February 2025**

- We are the first all 1st-year team in BVP's history. We won the Fan Favorite award from the vote of 500+ attendees.

1st Place at the Regionals New York Business Pitch Competition (Won $300 Grant for Brailleo) **March 2025**

PUBLICATIONS

Advanced Euclidean Geometry: Beautiful Drawn Problems & Simple Explanations | BOOK
PMCE, a Novel Centerline Extraction Algorithm Based on Spatial Distribution of Aggregates | PAPER

Languages: English (fluent), Mandarin (fluent), Spanish (Limited Working Proficiency)