Jiayi Wu

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EDUCATION

Brown University

B.Sc. Mathematics-Computer Science, Urban Studies, 4.0 GPA

Providence, RI | Sept 2024—May 2028

Relevant Courses: Critical Data and Machine Learning Studies, Linear Algebra with Theory, Comp Sci: An Integrated Introduction

Shanghai Qibao Dwight High School

International Baccalaureate Diploma Programme, Final Grade 45/45

Shanghai, China | Sept 2021—June 2024

PROJECT EXPERIENCE

Converter Education Initiative, Founder and Technology Director [GitHub]

Shanghai, China | Oct 2021—Present

- Developed Converter's Android mobile application, a course-streaming platform with Java-based Android Studio; designed XML-based UI/UX features and backend Integration with Ali Cloud Databases to support user interactions in real-time, including authentication, customized content engagement (posting, commenting), and file management (course streaming)
- Conducted a 28-page quantitative research on the Double Reduction policy's impact on the tutoring industry in China, awarded Global Hackathon First Place (top 5%) and National First Prize (top 5%) in China Thinks Big Competition 2022
- Collected 1000+ Weibo posts via Python-based web scraping; then conducted NLP sentiment analysis for policy evaluation
- Facilitate Converter's Collaboration with Renmin University of China (RUC) Career Lab to expand community outreach

AI4ALL Ignite Accelerator, Fellow [GitHub]

Remote | Sept 2024—Present

- Engineered an NLP classifier for Entity Extraction and Legal Judgment Prediction in Refugee Claims using Python (Tensorflow), trained on AsyLex Refugee-Law Database, and employed over fine-tuned baseline models (pretrained on general-purpose and legal data) including BERT, RoBERTa, DeBERTa, LegalBERT, CaseHOLD, PoL, and LexLM
- Created visualizations of the dataset using NumPy, Pandas, and Matplotlib for investigating potential biases and debiasing

Political Data Journalism and Visualization, Data Associate at Brown Political Review Providence, RI | Sept 2024—Present

• Compiled data and crafted interactive visualizations using Python and Flourish for political news and editorials (e.g. Providence Street Crash Visualizer, Global Digital Transaction Records Visualizer) published on Brown Political Review

Infrared City GmbH, *Data Intern* [GitHub]

Remote | July 2024—Sept 2024

- Built the company's interactive data visualization templates including rose charts, scatter plots, psychrometric charts, contour charts, and sun-path diagrams to illustrate worldwide EnergyPlus Weather data using JavaScript and HTML/CSS
- Designed the Web App's interactive explorer mode using Vue.js and Node.js, allowing users to customize data visualizations

Connect 4 AI Player Project, Leading Contributor

Providence, RI | Nov 2024—Dec 2024

• Handcoded the Connect4 Game and a solver/AI player with ReasonML from scratch, utilizing game theory practiced over binary tree data structure, minmax, and alpha-beta pruning to achieve optimization of AI Player's moves; scored 99/100

RESEARCH EXPERIENCE

Help-Seeker Identification Research Project, Researcher

Remote | July 2024—Present

- Leveraged RNN (LSTM) to develop an automated classifier for censorship-susceptible petitioning messages on Chinese social media platforms; working with a community-based legal nonprofit to implement a post collector based on the classifier
- Investigated the performances of different language models (LLMs, PLMs, and traditional DLMs) on varying linguistic patterns and Algospeak of social-media petitioning messages; developed a set of metrics explaining such differences

High School Mathematical Contest in Modeling (HiMCM), Team Leader

Shanghai, China | Feb 2022—Jan 2023

- Developed an ODE model to simulate honeybee population dynamics with MATLAB, integrating seasonal and resource factors with <15% validation error; conducted sensitivity analysis on thresholds critical to colony stability and reproduction
- Applied ARIMA modeling to analyze seasonal trends in bee population changes and forecast colony stability, formulated an optimization model for hive placement; crafted a 22-page research paper awarded as Meritorious, top 15% among all teams

LEADERSHIP EXPERIENCE

Center for AI and Digital Policy, AI Policy Clinics Research Group Member

Remote | Sept 2024—Dec 2024

- Attending weekly research seminars and drafting policy analyses & proposals on national/international AI policy campaigns
- Evaluated Costa Rica's AI policy, contributed to CAIDP's Artificial Intelligence and Democratic Values Index Report 2024

Brown China Summit, Responsible AI Panel Director

Providence, RI | Sept 2024—Present

• Launched and directed the Responsible AI (Governance) Panel at Brown China Summit 2025, invited college professors and public officials to discuss algorithmic fairness, transparency, and AI governance with an emphasis on US-China relations

SKILLS & INTERESTS

Technical Skills: Java, Python, JavaScript [Vite, Vue.js, Node.js], HTML/CSS, SQL/MySQL, XML, MATLAB, C/C++, Android Studio, Microsoft Excel, Git, Adobe Photoshop, Processing | **Languages:** Bilingual proficiency in Mandarin Chinese and English