# ASPEN Y. WANG

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# RESEARCH OBJECTIVES

My passion for exploring human-centered applications of language technologies has driven me to pursue research opportunities that lead to graduate studies in NLP and LLM. My research interests include decision-making, knowledge reasoning, machine translation, speech synthesis, and human-computer interaction. I wish to contribute to the development of AI systems that improve linguistic accessibility and enable seamless, context-aware communication across user communities.

# **EDUCATION**

Vassar College Aug. 2022 – Present

B.A. in Computer Science, minors in Statistics and History

Poughkeepsie, NY

Expected Graduation: May 2026

- Relevant Coursework: Analysis of Algorithms, Data Structures and Algorithms, Computer Organization, Theory of Computation, Linear Algebra, Calculus 3
- Planned Coursework: Computational Linguistics, Data and its Discontents, Bayesian Statistics, Statistical Machine Learning

#### RESEARCH EXPERIENCE

#### Summer Research Intern

May 2024 - Aug 2024

Depositar Lab, Institute of Information Science, Academia Sinica

Taipei, Taiwan

- Advisor: Dr. Tyng-Ruey Chuang
- Area of Work: Data Analysis, Digital Preservation, Database Management, Research Data Management
  - Designed a reusable ETL pipeline for migrating the digital archive database, adhering to FAIR data principles, and documented the process as a comprehensive guideline for future use.
  - Conducted literature review on research data management plans, persistent identifier protocols, and open data policies, and summarized findings into a detailed analysis report.
  - Upgraded and maintained an outdated JavaScript web app to improve functionality and performance. Bundled as a ready-to-publish NPM package to support research tool dissemination.

#### PROFESSIONAL EXPERIENCE

#### **Digital Systems Intern**

Sep 2024 - May 2025

Vassar College Library

Poughkeepsie, NY

• Worked on automating metadata ingestion and digital media uploads for library archives, applying metadata standards to improve data quality and reproducibility.

Summer IT Volunteer Jun 2023 – Jul 2023

Spring Sprouts Innovation for Social Services

Taipei, Taiwan

• Contributed to the development and maintenance of the NPO's website infrastructure and conducted data-driven analysis to inform marketing strategies for fundraising initiatives.

# EXTRACURRICULAR ACTIVITIES

# **Graphic Designer**

Sep 2022 - May 2024

Portrait Magazine

Poughkeepsie, NY

• Led design discussions on article layout and visual presentation for Vassar's semesterly Asian American Student Magazine, integrating principles of graphic design and audience engagement.

#### RELATED PROJECTS

# Live Forum Topic & Sentiment Analyzer

Apr 2025 - Present

 Engineered a full-stack research prototype that leverages a fine-tuned Chinese BERT model alongside custom keyword-extraction heuristics to categorize online forum posts into domain-specific classes (news, political discourse, off-topic) and visualize real-time community emotional trends.

#### SKILLS

**Natural Languages**: Chinese(Mandarin):Native, English:Full Proficiency, French, Hokkien: Conversational **Programming Languages**: Python, JavaScript, Java, SQL, C/C++, Ocaml