Yuhan Wang

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EDUCATION

Smith College Northampton, MA
Bachelor of Arts: Art History & Computer Science; GPA: 3.96/4.0 Expected May 2025
Awards: Dean's List 2021-2022; 2023-2024

RESEARCH EXPERIENCE

Computer Science Honors Project Northampton, MA
Honor Thesis supervised by Prof. Jordan Crouser August 2024 – present

- Research the use of AI in higher education and target factors that influence their trust across disciplines.
- Conducted extensive literature reviews on the use of AI among college students and trust models in AI context.
- Designed a questionnaire to survey students' use of AI across science, humanities, and art and investigate differences in trust in relation to AI proficiency and fact-focused or creativity-oriented task context.
- Facilitate and lead interviews voluntarily in Prof. Ravi Karkar's *Wee Work* project, gathering qualitative data about stress management in workplace contexts as preparation for thesis-related interviews on AI trust.

Roy Rosenzweig Center for History and New Media Online; Fairfax, VA
Research Assistant in Prof. Deepthi Murali's Indian Textile project May 2024 – August 2024

- Conducted text analysis on eight scholarly articles, extracted detailed information on 18th- and 19th-century textile production, and compiled 100+ entries to*Prof. Murali's* open-source database.
- Developed digital humanities skills like data visualization with D3.js and digitization prototyping for historical archive in the DH & RSE Summer School at Edinburgh Futures Institute.

Smith College Phyllotaxis Lab Northampton, MA
Research Assistant in Prof. Christophe Golé's Phyllotaxis lab May 2023 – May 2024

- Applied 3 variations of Topological Data Analysis(TDA) in Python to measure the regularity of phyllotaxis in both simulative disk-stacking models and 10+ plant species.
- Redesigned model generation algorithms to produce hexagonal heatmaps, enhancing data visualization and interpretability; presented at Smith College's *Celebrating Collaboration*, generating public interest that led to a phyllotaxis plant morphology exhibition.
- Explored and created visually engaging plots, including violin plots and animated persistence diagrams, displaying and contrasting geometric features across species.

ExploreCSR at Brown University Online; Providence, RI
Research Program Participant mentored by Prof. Jeff Huang & Catherine Chen January 2023 – May 2023

- Prototyped 17 vector images as web page backgrounds in XML language with <svg> tags. Coded an svg poster that showcases vector images' flexibility and presented at Brown's research symposium
- Conducted user study on a vector image creation tool *filtered.ink* that provides insight about learning cost and accessibility for Prof. Jeff Huang's research lab.

INTERDISCIPLINARY PROJECTS

Guerilla AI Online
A Computer Vision-Assisted Investigation inspired by Guerilla Girls May 2023 – present

- Leveraged open-source museum data and large language models to analyze the under-representation of female artists and the over-dominance of female nudes in modern art collections, validating claims by Guerilla Girls.
- Trained Ollama on modern artworks from the MET, discovering a dominance of male artists over female by 94%.
- Contributed to a GitHub repository that facilitates easy public access to museum image data.

Smith College Design Thinking Initiative Northampton, MA
Studio Design Partner; Website Operation Partner May 2022 – present

- Tutor students in design practices, focusing on ideation, prototype, and implementation. Provide hands-on guidance for machines such as 3D printers. Host workshops on 3D modeling and crochet to demystify making.
- Led user-centered research initiatives to improve space accessibility and inclusiveness, developing tools such as staff proficiency charts and affirmation signs that foster student engagement.
- Improved the smithmakersmaps.com website with interactive data features like real-time making space information in TypeScript and Angular, improving accessibility of making resources on campus.

Mystery Art Object Recognizer Northampton, MA
MTH353 Seminar: Topics in Deep Learning; ARH 212 Ancient Cities and Sanctuaries December 2023

- Developed a machine learning project for art classification, focusing on ancient artworks from the Near East, Egypt, Greek, and Roman. Collected and preprocessed a dataset of 1000 images to enable model training.
- Constructed 2 CNN models with Tensorflow, experimented with various labeling techniques, and achieved 80% accuracy on Greek artworks. Enhanced data-driven understanding of ancient art's cross-cultural influences.

LEADERSHIP/COMMUNITY ENGAGEMENT

Smith College International Students Organization Northampton, MA
Chair(23'); Publicity(21'-22') September 2021 – present

- Represent international students by planning and hosting campus-wide initiatives and meetings. Oversee daily operations, event logistics, and budget for the largest student-run organization on campus.
- Foster collaboration with campus offices to increase international representation and visibility in the college community. Liaise between the international office and the student body.

Smith College Computer Science Department Northampton, MA
Student Liaison December 2023 - present

- Advocate for students' needs and bridge gaps in department meetings. Hosted *Bytes & Bites* networking events and facilitated students making connections with faculty in casual environments.
- Initiated *Prof Research Talk Series* and *REU info session* for students to navigate available CS resources.

Education Without Barriers Online; Shenzhen, China
Website team member September 2023 – present

- Design and maintain a WordPress-based website to raise visibility and support fundraising initiatives left-behind children and equitable educational resources. Coordinate with teaching spots, address limited-budget equipment needs and build web-based teaching facilitator programs.

SKILLS

Programming: C, C++, Java, JavaScript, Matlab, Python, React, Ruby

Frameworks/Libraries: Angular, Rails, D3.js, NumPy, Pandas, Plotly, Scikit-learn,TensorFlow

Creative Software: Blender, Figma, Fusion 360, PhotoShop, Premiere, P5.js, Shapr3D, Three.js, Tinkercad

Language: Chinese (native speaker); Spanish(intermediate)