

Yuhan Wang

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EDUCATION

Smith College

Bachelor of Arts: Art History & Computer Science; GPA: 3.96/4.0
Dean's List 2021-2022; 2023-2024

Northampton, MA
Expected May 2025

RESEARCH EXPERIENCE

Smith College Human Computation & Visualization Lab

Honor Thesis advised by Prof. Jordan Crouser

Northampton, MA
August 2024 – present

- Investigate AI's roles in higher education and target misalignments between institutional policy, faculty perception, and students' use to promote user-centered, ethical technology design and policy.
- Conduct literature reviews and public surveys for ground understanding of AI use and academic integrity.
- Facilitate interviews in Prof. Ravi Karkar's *Wee Work* project to prepare for leading thesis interviews.

Roy Rosenzweig Center for History and New Media

Research Assistant in Prof. Deepthi Murali's Indian Textile project

Online; Edinburgh, UK
May 2024 – August 2024

- Conducted text analysis on 8 scholarly articles of ~3000 pages, extracted detailed information on 18th - 19th centuries textile trade and production, and compiled 100+ entries into Prof. Murali's open-source database.
- Developed digital humanities skills like data visualization with D3.js and rapid prototyping for archive digitization in the *DH & RSE Summer School* at Edinburgh Futures Institute.

Smith College Phyllotaxis Lab

Research Assistant in Prof. Christophe Golé's Phyllotaxis lab

Northampton, MA
May 2023 – May 2024

- Applied 3 variations of Topological Data Analysis in Python to measure the regularity of phyllotaxis in simulative disk-stacking models and 7 plant species. Presented at Smith College's *Celebrating Collaboration*.
- Redesigned model generation algorithms to produce hexagonal heatmaps, improving data interpretability.
- Researched and created visually engaging plots like violin plots and animated persistence diagrams, supporting visual comparison of statistical differences across species.

ExploreCSR at Brown University

Research Program Participant mentored by Prof. Jeff Huang & Catherine Chen

Online; Providence, RI
January 2023 – May 2023

- Investigated the feasibility of Scalable Vector Graphics (SVG) as website backgrounds.
- Prototyped 17 vector images as web page backgrounds using <svg> in XML, identified scalability, precision, and interactivity as key advantages, and presented an SVG-based [poster](#) at Brown's research symposium.
- Conducted a 10-person user study on a vector image creation tool *filtered.ink* and discovered that built-in examples ease the steep learning curve of specialized CS tools.

INTERDISCIPLINARY PROJECTS

Guerilla AI

A Computer Vision-Assisted Investigation inspired by Guerilla Girls

Online
May 2024 – present

- Leverage open-source museum data and large language models to statistically support *Guerilla Girls*' claim on the under-representation of female artists and the over-dominance of female nudes in modern art.
- Train an Ollama model on modern artworks from the Metropolitan Museum of Art database, discovering that 98.4% of the female nudes were created by male artists.
- Contribute codes for easy access to National Gallery of Art image data to a GitHub [open-source project](#).

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 and tools usage. Host workshops on 3D modeling and crochet for 30+ students.
- 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 *Smith Makers Map* (smithmakersmaps.com) with interactive data features like real-time making space information in TypeScript and Angular, enhancing accessibility of making resources on campus.

Break Through Tech AI at MIT

Cambridge, MA

Program Participant

May 2023 - May 2024

- Developed a predictive model for bat population decline across North America, analyzed time series data on White-Nose Syndrome, and provided insights on indicative fungi for WNS prevention to *Biointerphase*.
- Led a team of 4 in the New York Botanic Garden Kaggle competition and won the *Most Submissions* award.
- Leveraged scikit-learn and TensorFlow to build Random Forest, NLP, and CNN models, achieving 81% accuracy in bat population prediction, and 97.7% accuracy in plant classification.

LEADERSHIP / COMMUNITY ENGAGEMENT

Smith College International Students Organization

Northampton, MA

Chair(23'-25'); Publicity(21'-23')

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 in the college community.

Smith College Computer Science Department

Northampton, MA

Student Liaison

December 2023 - present

- Liaise between students and faculty. Advocate for students' needs in department meetings.
- Initiated *Bytes & Bites* networking events, *Prof Research Talk Series*, and *REU info session* to facilitate students navigate CS opportunities and advance equitable access to education 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 for left-behind children in China.
- Address local schools' limited-budget equipment needs with interactive web-based teaching facilitator programs.

SKILLS

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

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

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

UX Methods: Affinity Diagram, Cognitive Walkthrough, Prototyping, Persona & Scenario, Survey, Usability Testing

Making: Calligraphy, Crochet, Hand Sewing, Laser Cutter, Sewing Machine, Vinyl Cutter, 3D printer

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