

# 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 a public survey for ground understanding of students' perception 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- and 19th-century textile 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 12 plant species.
- Redesigned model generation algorithms to produce hexagonal heatmaps, enhancing data visualization and interpretability; presented at Smith College's *Celebrating Collaboration*.
- Researched and created visually engaging plots like violin plots and animated persistence diagrams, displaying and contrasting geometric features 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 provided insights about the learning curve and accessibility.

## INTERDISCIPLINARY PROJECTS

### Guerilla AI

*A Computer Vision-Assisted Investigation inspired by Guerilla Girls*

Online  
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 *Metropolitan Museum of Art* database, discovering that 98.4% of the female nudes were created by male artists.
- Contributed codes for easy access to *National Gallery of Art* image data to a GitHub [open-source project](#).

### **Smith College Design Thinking Initiative**

*Studio Design Partner; Website Operation Partner*

Northampton, MA

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 the [smithmakersmaps.com](https://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**

*MTH353 Seminar: Topics in Deep Learning; ARH 212 Ancient Cities and Sanctuaries*

Northampton, MA

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 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**

*Chair(23'); Publicity(21'-22')*

Northampton, MA

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**

*Student Liaison*

Northampton, MA

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**

*Website team member*

Online; Shenzhen, China

September 2023 – present

- Design and maintain a WordPress-based website to raise visibility and support fundraising initiatives for left-behind children and equitable educational resources.
- Coordinate with local schools, address limited-budget equipment needs, and build 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 Sew, Laser Cutter, Sewing Machine, Vinyl Cutter, 3D printer

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