

# Jun Wang

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## EDUCATION

### University of Washington

*M.S. in Computer Science* (GPA: 4.00 / 4.00)

*B.S. in Computer Science* (GPA: 3.92 / 4.00)

Seattle, WA

Sep. 2024 – Jun. 2025

Sep. 2021 – Jun. 2024

## SKILLS

**Programming Languages:** Python, Java, C#, C/C++, SQL, JavaScript

**Tools & Frameworks:** PyTorch, OpenCV, Unity, AR Foundation, Vuforia, Hugging Face, NumPy, pandas, Tableau, Git,  $\LaTeX$

**Coursework:** AI, Deep Learning, Machine Learning, Computer Vision, AR/VR, Graphics, Data Structures and Algorithms, Robotics

## PROFESSIONAL EXPERIENCE

### Research Intern – Human-Centered AI

Jun. 2024 – Present

*Stanford University – Institute for HAI (Prof. Hari Subramonyam)*

Stanford, CA

- Leading the development of a storytelling tool to support children with specific language impairments by personalizing stories using vision and language models and augmenting storyboards with JavaScript, aiming to improve speech and language therapy outcomes.
- Identified 3 key challenges in language interventions and proposed 5 integrated solutions combining language and visual aids to improve child engagement and story comprehension.

### Research Assistant – Augmented Reality & Robotics

Jun. 2023 – Present

*UW RAIN Lab (Prof. Ranjay Krishna)*

Seattle, WA

- Engineered an innovative iOS application enabling non-technical users to program robots through intuitive augmented reality (AR) visualizations, eliminating the need for physical robots during the training process.
- Developed 3 AR visualizations and 7 system features with Unity and AR Foundation to address the 6 usability challenges identified from a formative user study, enhancing system usability and data collection efficacy.
- The system outperformed 3 state-of-the-art interfaces on 3 common tabletop tasks, improving success rate (+30% on average) and achieving task completion times and usability scores comparable to kinesthetic teaching (physically guiding a robot) ( $mean_p = 0.30$ ).

### Research Assistant – Augmented Reality & Computer Vision

Nov. 2022 – Jul. 2024

*Makeability Lab (Prof. Jon Froehlich)*

Seattle, WA

- Developed a wearable AR system that resolves ambiguity in speech queries by integrating eye gaze and pointing gesture recognition (HoloLens 2 MRTK), conversation context, real-time computer vision (Google Cloud Vision, Amazon Rekognition), and LLMs.
- Our system achieved a usability score of 1.8 (SD=0.9) on pronoun-based speech queries (1-3 scale, lower is better), outperforming Google Lens (2.6, SD=0.7) and matching Google Voice Assistant (1.7, SD=0.7).
- Fine-tuned a YOLOv7 model on a custom dataset, achieving 85%+ accuracy in tennis ball identification within 150 ms segments.

### Software Engineer – Computer Vision & Robotics

Jan. 2022 – Jan. 2024

*Advanced Robotics at UW*

Seattle, WA

- Collaborated with subteams to assess competition requirements and design robots, leading to our victories as the **2022 and 2023 RoboMaster North America Champions**.
- Developed a convolutional neural network (CNN) that processes RGB and depth data from RealSense cameras to accurately detect enemy plates and predict 3D coordinates of opponent robots in real-time (90%+ accuracy and 30+ FPS).
- Implemented logging for referee data, including competition results, real-time updates, robot IDs, and warnings.

## TEACHING & LEADERSHIP

**CSE 373: Data Structures and Algorithms** *Lead teaching assistant (250+ students, infrastructure, recitation)*

Sep. 2024 – Present

**Stanford Code in Place** *Section leader (~10000 students worldwide, recitation, office hours)*

Apr. 2024 – Jun. 2024

**CSE 412: Data Visualizations** *Undergraduate teaching assistant (100+ students, recitation, grading)*

Jan. 2024 – Mar. 2024

**UW CSE Teaching-Track Faculty Recruiting Committee** *Student interviewer*

Dec. 2023 – Feb. 2024

**TechTogether Seattle Hackathon** *organizer & Programming member (~500 participants, ~50 volunteers)*

Jun. 2022 – Nov. 2022

## PUBLICATIONS

### EVE: Enabling Anyone to Train Robots using Augmented Reality

Jun Wang, Chun-Cheng Chang\*, Jiafei Duan\*, Dieter Fox, and Ranjay Krishna

*ACM Symposium on User Interface Software and Technology (UIST 2024)*

### GazePointAR: A Context-Aware Multimodal Voice Assistant for Pronoun Disambiguation in Wearable Augmented Reality

Jaewook Lee, Jun Wang, Elizabeth Brown, Liam Chu, Sebastian S. Rodriguez, and Jon E. Froehlich

*ACM Conference on Human Factors in Computing Systems (CHI 2024)*