Jun Wang

EDUCATION

University of Washington Seattle, WA

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

Sep. 2024 – Jun. 2025

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

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 RAIVN 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

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 \P**.
- 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 *Graduate 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) Sum. 2024 – Mar. 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)