Jun Wang

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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**.
- 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)* Jan. 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)