Taeyoung Yeon taeyoungyeon@northwestern.edu • taeyoungyeon.github.io

Research Interests

Human-Computer Interaction, Machine Learning for Human Sensing, On-Device AI

Research Experience

Post-Baccalaureate Research Fellow   September 2024 - Present
Northwestern University, SPICE Lab, advised by Prof. Karan Ahuja   *Evanston, IL*

Professional Experience

Full Stack Game Developer (Alternative Military Service)   September 2019 - February 2023
Awesomepiece   *Seoul, South Korea*
CUDA Engineer Intern   July 2019 - August 2019
MindsLab   *Pangyo, South Korea*

Education

Seoul National University   March 2017 - February 2024
Bachelor of Science in Computer Science and Engineering   *Seoul, South Korea*
Overall GPA: 3.53/4.00, *Graduated* **cum laude**

Publications

1. **Taeyoung Yeon**, Vasco Xu, Hank Hoffman, Karan Ahuja. **WatchHAR: Real-time On-device Human Activity Recognition System for Smartwatches.** *Proceedings of the 27th ACM International Conference on Multimodal Interaction (ICMI '25).* 2025.

Manuscripts Under Review

2. [First Author]*, **Taeyoung Yeon***, [Other Co-authors]. **FlowAvatar: Real-Time Full-Body Avatars from Sparse Egocentric Inputs on Consumer XR Devices.** *Submitted to IEEE VR 2026. Under Review.*

3. [First Author]*, **Taeyoung Yeon***, [Other Co-authors]. **MARIO: Motion-Augmented Real-Time Multi-Sensor Inertial Odometry.** *Submitted to CVPR 2026. Under Review.*

Demos

Research demonstrations presented to industry partners: **Google Platform and Experiences, Apple, Qualcomm XR, Adobe Research, Dolby Studios**

Technical Skills

Programming Languages: Python, Java, C#, JavaScript, Kotlin, Swift, CUDA
Machine Learning: TensorFlow, PyTorch, CoreML, scikit-learn, model optimization
Mobile & VR Development: Unity (Meta SDK), iOS/Android development, cross-platform frameworks
Backend & Infrastructure: Spring Boot, Netty, Django, React, MySQL, Google Cloud Platform

Honors & Awards

Seoul National University Academic Excellence Scholarship   2017 - 2023

Language Proficiency

Korean: Native proficiency
English: Professional working proficiency - TOEFL iBT 106