Zoe Zhou

Email | LinkedIn | Website | GitHub

EDUCATION

Vrije Universiteit Amsterdam, BS in Computer Science   *Sept 2023 – June 2026 (Estimated)*

- **GPA:** 8.8/10 (top 10 %)
- **Relevant Coursework**: **Python, CUDA, Linux:** Computer Networks, Machine Learning; **Human-centered Design, User Studies**: Human–Computer Interaction; **C++, Computer Architecture:** Operating Systems, Computer Programming, Computer Organization; **Mathematics:** Calculus, Linear Algebra, Statistical Methods

INTERNSHIP EXPERIENCE

Social AI Lab, Computer Science Department, Vrije Universiteit Amsterdam   *June 2025 – Dec 2025 (On-site)*
Project: VR2Arm: VR Teleoperation for Real-Robot Manipulation

- **Real-time robot control:** Deployed a VR controller-based teleoperation interface from stretch. Enabled real-time object manipulation (grasping, moving, rotation). Tested, iterated, and refined on a real robotic arm.
- **User study design:** Designed and conducted a human–robot interaction study ($N = 25$). Collected and analyzed usability and workload metrics using NASA-TLX, SUS, and qualitative feedback.
- **Teamwork and problem-solving:** Proactively collaborated with researchers and lab engineers. Scoped and resolved technical problems. Fully documented and open-sourced the system.

ImCare Biotech, Doylestown, PA, USA   *July 2024 – Sept 2024 (Remote)*
Project: Synthetic Data Augmentation for Early-Stage Liver Cancer Detection

- **Synthetic data generation**: Improved missing data handling via KNN imputation, increasing predictive sensitivity by 12%.
- **Data augmentation:** Applied SMOTE to augment blended data. Developed a logistic regression model using PyTorch, achieving an AUC-ROC of 0.87.
- **Impact:** Enabled an estimated 680 additional early-stage detections per 100k screenings.

PUBLICATIONS

- **Zhou, Y.**, Hou, M., Baraka, K. *"Static Is Not Enough: A Comparative Study of VR and SpaceMouse in Static and Dynamic Teleoperation Tasks"*, In the HRI'26 Late-Breaking Reports, accepted in January, 2026.

AWARD

1ST PLACE - 4th Annual Hack4her Event *(Track: Ethical AI Agents for Public Services)*   *June 13-15, 2025*

- **Won 1st Place** at a national women-in-tech hackathon for students.
- Designed an ethical AI system to automate childcare allowance approval processes.

TEACHING

Teaching Assistant for Automata and Complexity & Probability and Statistics   *Feb 2026 – May 2026 (Scheduled)*
University: Vrije Universiteit Amsterdam

- **Teaching:** Lead weekly tutorials, assist with exercises, and support students in courses involved.

SKILLS

- **Programming & Technical Stack:** Python, C++, C; Unity, Linux
- **Hardware & Platforms:** Meta Quest 3 (VR controllers), Franka Emika Panda, SpaceMouse