Ellia Yang | elliay@andrew.cmu.edu | elyang1221@gmail.com | (716) 235-6868

Skills: Python, C, SML, HTML/CSS/JS, Java, LaTeX, Linux/UNIX, Figma, Unity, Webflow, Microsoft Office, Autodesk Inventor, Revit, Fluent in English and Mandarin Chinese

Education and Involvement

Carnegie Mellon University School of Computer Science *Aug 2021 - May 2025*

B.S. in Human-Computer Interaction

- **Courses:** 15-112 Fundamentals of Programming & CS, 15-150 Principles of Functional Programming, 15-122 Principles of Imperative Computation, 15-281 AI Representation & Problem Solving, 05-410 User Centered Research & Evaluation, 85-213 Human Information Processing in AI, 15-251 Great Ideas in Theoretical CS, 05-317 Design of AI Products & Services, 15-213 Computer Systems, 05430 Programming Usable Interfaces
- **Society of Asian Scientists and Engineers** - *Marketing Director* - Oversees marketing for all events (social media, email, etc.)
- **Design for America** - *Designer* - Provided website design services to a local non-profit organizations, currently working with student mental-health organization to design club operations and initiatives through a marketing lens.

Experience

Research Assistant *May 2022 – Present*

Human-Computer Interaction Institute - OH!Lab

- Contributed significantly to publication accepted to ACM CHI Conference on Human Factors in Computing Systems 2023.
- Collaborating on a NSF-funded project developing a culturally-responsive computing curriculum for children, currently exploring perspectives on AI fairness and ethics in children from traditionally marginalized populations in computer science, led by Professors Amy Ogan, Jessica Hammer, and Motahhare Eslami *(Collaborative Research: A Social Programmable Robot Fostering Rapport to Improve Computer Science Skills and Attitudes).*
- Developed and conducted multiple rounds of an interactive workshop that included robotics, basic AI concepts, and programming instruction, and collected qualitative data for thematic analysis using inductive open coding.
- Performed extensive background research and literature review on Fairness, Accountability, Transparency, and Ethics (FATE) in AI, as well as moral development theories and currently researched perspectives on algorithmic fairness.
- Designed and tested iterations of a tabletop game designed to teach concepts of training data and bias in artificial intelligence.

Summer Staff *May 2022 - Aug 2022*

Carnegie Mellon University First-Year Orientation

- Assisted with logistics of the comprehensive First-Year Orientation Program at CMU
- Handled organizational duties such as large-scale scheduling, inventory management, updating online information, and designing informational graphics.

Supervisor *Sep 2018 - July 2021*

Michael Phelps Swim School

- Managed and scheduled staff of 10 people, trained new staff to ensure quality of instruction and student safety.
- Followed up with marketing leads and took inquiry phone calls, worked customer service at front desk.

Honors and Awards

Impact CMU 2022 Faculty Judge Winner

- Awarded funds to support a previously awarded hackathon project–Kindness First Penguin–as the faculty judged winner of ImpactCMU, an end-of-semester showcase of CMU student-led social impact projects.

Meta Best Community Hack, DFA Best Hack for Social Good - Tartanhacks 2022

- Won the best community hack from Meta and best hack for social good awards at the TartanHacks 2022 hackathon. Created a chrome extension called Kindness First Penguin with a virtual pet that uses sentiment analysis to encourage the use of constructive language on the internet instead of toxic behaviors.

Coca-Cola Scholars Program Semi-Finalist, National Merit Finalist

Recent Projects

Citadel, Citadel Securities, and Correlation One 2022 Summer Invitational Datathon - *Programmer/Researcher*

- Selected to compete in global-scale datathon. Developed multi-class classification machine learning model to predict loan grading and subgrading using data from a peer-to-peer lending platform. Utilized Google Colab, Tensorflow, and Keras.

EveryWay - *UX Researcher & Designer*

- Conducted contextual interviews, speed dating sessions with storyboards, usability tests, and surveys to gather data about how college-aged users typically planned their trips. Analyzed the user data through interpretation notes and affinity clustering to design a low-fidelity travel-planning tool prototype, which was then tested using tools such as the System Usability Scale.