Alice Gao

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Areas of interest

Human-computer interaction • Cross-cultural research • UI understanding • Adaptive digital technologies

Education

2022-Present PhD in Computer Science & Engineering, **University of Washington**
2021-2022 MSc in Computer Science & Engineering, **University of Washington**
2017-2021 BS in Computer Science, **Princeton University**

Publications

* *denotes equal contribution*

Conference and Journal Papers

2025 Donghoon Shin, **Alice Gao**, Rock Pang, Katharina Reinecke, Emily Tseng. How Vibe Coding Might Worsen Global Design Homogenization:An Empirical Study of LLM-Driven Website Localization *In Submission.*

2025 **Alice Gao**,* Samyukta Jayakumar,* Marcello Maniglia,* Brian Curless, Ira Kemelmacher-Shlizerman, Aaron R. Seitz and Steven M. Seitz. Don't Look at the Camera: Achieving Perceived Eye Contact. *Journal of Vision 24(10), https://doi.org/10.1167/jov.24.10.1094, Sep 2024.* (arxiv ver.)

2024 **Alice Gao**, Wataru Akahori, Naomi Yamashita, and Katharina Reinecke. Using Slack in the US and Japan: Surfacing Cultural Asymmetries in Overcoming Shortcomings. *In Submission.*

Workshop Papers & Posters

2022 K.J. Kevin Feng*, **Alice Gao***, Johanna Suvi Karrass*. Towards Semantically Aware Word Cloud Shape Generation. *Adjunct Proceedings of the 35th Annual ACM Symposium on User Interface Software and Technology (UIST '22 Adjunct).* Bend, OR. October 2022.

Research Experience

Jan 2024 - Present Research Assistant, **Wildlab, University of Washington**
Advisor: Katharina Reinecke
- Developing machine learning techniques to predict the usability of GUIs for different demographic groups.

- Developing machine learning models to analyze website designs (GUIs) at a design component level to detect demographically salient regions of preferred designs and automate generation of better, personalized UI designs for different demographics
- Surfacing asymmetries in the use of digital technologies and developing methods and tools to create more suitable tools for diverse user groups.
- Mixed-methods to investigate AI over reliance and potential effects of value clash when using AI writing tools for different demographic groups

Sep 2021-Jan 2024 Research Assistant, **GRAIL, University of Washington**
Advisor: Steve Seitz, Brian Curless, Ira Kemelmacher-Shlizerman
Studied and developed machine learning techniques to direct attention and eye gaze for a more attentive video conferencing experience.

Sep 2019-Feb 2021 Undergraduate Research Assistant, **Princeton Vision & Learning Lab**, Princeton University
Advisor: Jia Deng; mentored by Hei Law
Researched how to improve associative embedding predictions and groups, which represents pixels in an image, for a one-stage object detector used for instance segmentation.

Teaching

University of Washington (graduate)
Fall 2025 CSE373: Data Stuctures & Algorithms, *Teaching Assisstant*
Spring 2024 CSE581: Computer Ethics, *Teaching Assistant*
Fall 2024 CSEP557: Current Trends In Computer Graphics, *Teaching Assistant*
Winter 2024 CSE581: Computer Ethics, *Teaching Assistant*

Princeton University (undergraduate)
Spring 2020 COS426: Computer Graphics, *Undergraduate Teaching Assistant*
Fall 2018-Fall 2019 COS226: Algorithms & Data Structures, *Course Grader*

Industry Experience

Jun-Aug 2020 *Tech Intern in Online Account Opening*; **Capital One**; New York City, New York
Created new endpoint and unit tests, laid framework for streaming data platform, and launched new security groups.

Jun-Aug 2019 *AI Design Lab Intern*; **Tezign**; Shanghai, China
Assisted in optimizing image retrieval to match similar designs and contributed to training a model in judging strong vs weak graphic designs.

Jun-Aug 2018 *Technical and App Development Intern*; **Princeton Satellite Systems**; Princeton, New Jersey
Devised beginnings of gameplay for spacecraft simulation iOS app. Created 3D models for Phase II version of Direct Fusion Drive (DFD), a direct-drive, fusion-powered rocket engine.

Service and Leadership

May 2018 - Mar 2020

co-President, **Princeton Chinese Students Association**
Started a new Red Envelope fundraiser, acted as a liaison between guest speakers and CSA, participated in creating the first Asian+Students Council, organized and raised funding to host Steven Lim as a guest speaker, started weekly community nights (mahjong nights) that persist until today.

Skills

Languages: Python, R, SQL, TypeScript, JavaScript, C, Go
Frameworks: PyTorch, scikit-learn, Pandas, React, Sveltekit, Node.js, Django/DRF, Flask
Tools: Docker, Apptainer, Figma

Last updated: October 1, 2025