Alice Gao

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EDUCATION

University of Washington — Sep 2021 – Present
PhD in Computer Science & Engineering (MSc received Spring 2022) — *Seattle, WA*

Princeton University — Sep 2017 – Jun 2021
BSE in Computer Science | GPA: 3.73 departmental, 3.58 overall — *Princeton, NJ*

RESEARCH EXPERIENCE

Research Assistant — Jan 2024 – Present
Wildlab · University of Washington — *Seattle, WA*
- Training a custom neural network to learn embeddings from UI designs in order to develop a full-stack web application that helps UI/UX designers search for similar designs and design components from different cultures and visualize integrating them into their own interfaces
- Developing a full-stack web application to define cross-cultural emojis and provide contextual use cases based on demographics from crowdsourced data
- Developed a mixed-methods approach to investigating cultural differences in IM tool usage between US and Japan

Research Assistant — Sep 2021 – Jan 2024
GRAIL · University of Washington — *Seattle, WA*
- Researched and developed methods to correctly focus attention and eye gaze by training a neural network, providing a more engaged video conferencing experience

Undergraduate Research Assistant — Sep 2019 – Feb 2021
Princeton Vision & Learning Lab · Princeton University — *Princeton, NJ*
- Researched and developed methods to improve associative embeddings, which represent pixels in an image, for a one-stage object detector

INDUSTRY EXPERIENCE

Tech Intern | Java, Docker — Jun – Aug 2020
Online Account Opening · Capital One — *New York, NY*
- Created the endpoint of a new API for Single Sign On (SSO) Enrollment, which was deployed to QA, moving this service out of jBPM to more efficiently use microservices Cucumber and Gherkin for endpoint integration and Mockito for unit tests
- Built the framework for a streaming data platform to create new applications when opening an account, enabling local testing with Docker
- Deployed new security groups using Nimbus for a new SSO Enrollment API for QA and production

AI Design Lab Intern | Python, Flask — Jun – Aug 2019
Tezign — *Shanghai, China*
- Assisted in optimizing image retrieval to match similar designs and contributed to the pipeline for helping to train a model in judging strong vs weak graphic designs
- Used Flask for the company's backend and API for a company-specific, cloud-based file system

Technical & App Development Intern | Switft, Fusion360 — Jun – Aug 2018
Princeton Satellite Systems — *Princeton, NJ*
- Devised scene graph gameplay and developed a method to render text to keep score in OpenGL/GLKit for the spacecraft simulation iOS app
- Created 3D models for the Phase II version of Direct Fusion Drive (DFD), a direct-drive, fusion-powered rocket engine that can generate controllable power from 1-10 MW

TECHNICAL SKILLS

Languages: Python, R, SQL, TypeScript, JavaScript, C, Go
Frameworks: PyTorch, scikit-learn, ReactJS, Svelte, Node.js, Django/DRF, Flask
Tools: Docker, Apptainer
Research: Interview studies, survey design, statistical analysis