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*
- Developing neural network to detect most salient regions per demographic group from UI designs and provide UI recommendations through visualization techniques
- Developing a full-stack web application to define cross-cultural emojis and provide contextual use cases based on demographics from crowdsourced data
- Conducted 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 for instance segmentation in a one-stage object detector

INDUSTRY EXPERIENCE

Software Engineering 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*
- Optimized 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 | Swiftt, 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, Thematic analysis, Survey design, Statistical analysis