

# Alice Gao

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## EDUCATION

### University of Washington

*PhD in Computer Science & Engineering (MSc received Spring 2022)*

Sep 2021 – Present

*Seattle, WA*

### Princeton University

*BSE in Computer Science | GPA: 3.73 departmental, 3.58 overall*

Sep 2017 – Jun 2021

*Princeton, NJ*

## RESEARCH EXPERIENCE

### Research Assistant

*Wildlab · University of Washington*

Jan 2024 – Present

*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

*GRAIL · University of Washington*

Sep 2021 – Jan 2024

*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

*Princeton Vision & Learning Lab · Princeton University*

Sep 2019 – Feb 2021

*Princeton, NJ*

- Researched and developed methods to improve associative embeddings for instance segmentation in a one-stage object detector

## INDUSTRY EXPERIENCE

### Tech Intern | Java, Docker

*Online Account Opening · Capital One*

Jun – Aug 2020

*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

*Tezign*

Jun – Aug 2019

*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 | Swift, Fusion360

*Princeton Satellite Systems*

Jun – Aug 2018

*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