

Alice Gao

atgao@cs.washington.edu · Seattle, WA · 908-656-2973

Research Interests

novel-view synthesis, 3D reconstruction

Education

2021 – Present **University of Washington** – Seattle, WA
PhD in Computer Science
Advisors: Steve Seitz, Brian Curless, Ira Kemelmacher-Shlizerman

2017 – 2021 **Princeton University** – Princeton, NJ
B.S.E in Computer Science
GPA: 3.73 departmental, 3.53 overall.

Selected coursework: Probability and Stochastic Systems, Computer Graphics, Advanced Computer Vision, Operating Systems

Research Experience

Sept 2021 – Present **Attention in Video**
University of Washington
Correcting gaze and head pose in video conferencing systems using computer vision-based techniques and improving upon current baselines. Investigating the question of gaze perception.

Oct 2020 – Apr 2021 **Recursive Tournament Rules**
Mentors: Matt Weinberg (Princeton). *Senior thesis.*
Analyzed recursive tournament rules and worked to derive the theoretical bound of such rules and ran simulations.

Nov 2019 – Dec 2020 **Associative Embeddings in Instance Segmentation**
Mentors: Hei Law, Jia Deng (Princeton).
Researched and created methods to improve the use of [associative embeddings](#) for instance segmentation.

Work Experience

- Summer 2020 **Capital One** – New York City, NY
Tech Intern in Online Account Opening
Created new endpoint in new API deployed to QA; laid framework for streaming data platform for new applications creation; wrote and deployed integration tests, unit tests, and new security groups.
- Summer 2019 **Tezign** – Shanghai, China
AI Design Lab Intern
Created Python webscraping routine to gather data to train AI in design judgement; optimized image retrieval methods to match similar designs using CV algorithms; contributed to company's backend API for their own cloud-based file system.
- Summer 2018 **Princeton Satellite Systems** – Plainsboro, NJ
Technical and App Development Intern
Devised scene graph gameplay and developed method to render text to keep score in OpenGL/GLKit for spacecraft simulation iOS app; Created 3D models for Phase II version of Direct Fusion Drive (DFD), a direct-drive, fusion-powered rocket engine that can generate controllable power from 1-10 MW.

Teaching and Mentorship

- Research Mentor** - University of Washington
Thevina Dokka (Nov 2021 - Jun 2022, Undergrad); Duncan Du (Sept 2022 - Dec 2022, Undergrad)
- Sep 2018 – Jun 2020 **COS Course Staff** - Princeton
Undergraduate TA for computer graphics; grader for Algorithms & Data Structures

Leadership

- May 2018 – Mar 2020 Princeton Chinese Students Association
co-President, Events Chair
Led initiative in creating new Red Envelope fundraiser, liaison between guest speakers and CSA, participated in creation of first Asian+Students Council (A+SC) at Princeton, organized and raised funding to bring Steven Lim as guest speaker.

Technical Skills

Python, C, Java, Javascript, Django/DRF, Flask