Helen **Fang**

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Education

The University of Texas at Austin — **Expected May 2023**
Computer Science, B.S. — GPA: 4.0

- **Relevant Coursework**: Computer Graphics (**C++/OpenGL**), Artificial Intelligence (**Python**), Operating Systems (**C**), Computer Architecture (**C**), Data Structures (**Java**), Linear Algebra, Discrete Mathematics

Work Experience

Facebook — Remote - New York City, NY
Software Engineering Intern — *Aug 2021 - Nov 2021*

- Built out a new feature from end-to-end to set custom product cover images creator collections on Instagram Shops using **Hacklang** and **Python Django**.
- Created a new database schema to support the feature and integrated it with shop-building backend framework.
- Implemented full frontend flow by adding UI elements using Bloks, a server-side rendering framework.

Slack Technologies — Remote - Austin, TX
Software Engineering Intern — *May 2021 - Aug 2021*

- Restructured the Enterprise Grid migrations framework to ensure duration estimates are front-of-mind during development, improving scalability and accuracy for a system that represents $84M in ARR (18% of Slack Enterprise APR).
- Developed a tool to keep track of duration estimate changes in a **MySQL** table and alert of significant updates, in order to enhance transparency and streamline the migration process for both Slack representatives and customers.

UT Austin Department of Computer Science — Austin, TX
Undergraduate Teaching Assistant — *Jan 2021 - May 2021*

- Teaching assistant for CS313E: Elements of Software Design, a data structures & algorithms class taught in **Python**.
- Wrote grading scripts for assignments and exams, and held triweekly office hours to help students debug code.

Google — Remote - Austin TX
Student Training in Engineering Program (STEP) Intern — *May 2020 - Aug 2020*

- Worked closely with two other interns to design and develop a full-stack event organizer web application using **HTML/CSS**, **JavaScript**, **Java servlets**, and **Google Cloud Platform** APIs. Utilized **Apache Spark** to create a recommendation system that combines collaborative and content-based filtering to suggest events to users.

Projects

Polymesh Subdivider
Computer Graphics Independent Final Project

- Used **C++** and **OpenGL** to create an interactive polymesh renderer that loads 3D models from .OBJ files.
- Implemented the catmull-clark, loop, and doo-sabin subdivision algorithms.

PintOS
Operating Systems Class Project

- Significantly expanded a toy OS using **C**. Incorporated priority scheduling, system calls for user programs, and virtual memory, and converted the existing single-thread file system into an multi-threaded, multi-level indexed file system.