

HELEN FANG

737-222-9229 | helenfang524@gmail.com | fang-helen.github.io

EDUCATION

The University of Texas at Austin, Austin, TX
Computer Science, B.S.

Expected Graduation: May 2023
GPA: 4.0

Relevant Coursework: Data Structures, Linear Algebra, Discrete Mathematics, Energy Analytics (Freshman Research Initiative), Computer Architecture, Operating Systems (Fall 2020)

Technical Skills: Java, C, Python, Javascript, HTML & CSS

WORK EXPERIENCE

Google, Inc.

May 2020 — Aug 2020

Student Training in Engineering Program Intern

Remote - Austin, TX

- Used **HTML**, **CSS**, **Javascript**, and **Java** servlets within a Maven framework to build full-stack web applications.
- Implemented an interactive portfolio page where visitors can add comments and translate content.
- Designed and created a web application to search for, save, and create events within users' communities as a capstone project, providing an avenue for centralizing event information and increasing community engagement.
 - Used the Apache Spark library to create a recommendation system that combines collaborative and content-based filtering to suggest events to users.
- Engaged in an end-to-end software development cycle, including creating design docs, writing code, mocking objects and writing unit tests, setting up continuous integration, and completing code reviews.

PROJECTS

SnapPack — *Best Use of Google Cloud API, HackTX 2019*

- Created an Android app to determine missing items from a packing checklist using a picture of the luggage by using computer vision through the Google Cloud Vision API.

Hingle Basin — *Energy Analytics Class Final Project*

- Used a random tree regression to optimize the parameters for ten unconventional oil wells in Hingle Basin.
- Worked in **Python**, utilizing pandas and matplotlib to visualize and analyze the data.

Worksheet Generator

- Generates worksheets and answer keys, with customizable configurations such as worksheet length and export format.
- Programmed in **Java** and **JavaFX**, incorporating the Apache POI API to support .docx export.

NURBS and Polygon Models Evaluation for Video Game Graphics

- Researched the features of Non-Uniform Rational B-Splines (NURBS) and polygon meshes in 3D models and examined their respective suitability for video game graphics, summarizing these findings in a 4000-word essay.

OTHER ACTIVITIES AND EXPERIENCE

UT Austin Sanger Learning Center

Jan 2020 — present

Math and Computer Science Tutor

Austin, TX

- Tutored students for data structures, linear algebra, and calculus in one-on-one settings for 10 hours per week.

Travis County Tax Office

Jul 2019 - Aug 2019

Media Intern

Austin, TX

- Created and updated PSA videos about voter registration, vehicle titling, and more, and translated them into Chinese.

Austin Great Wall Chinese School

Aug 2018 - May 2019

SAT Math and English Teacher

Austin, TX

- Taught weekly, hour-long classes for SAT math and writing, with five students in each class.
- Planned curriculum, providing individualized learning environments for students of varying skill levels.