HELEN FANG

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EDUCATION

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

Relevant Coursework: Data Structures, Linear Algebra, Discrete Mathematics, Energy Analytics (Freshman Research Initiative), Computer Architecture, Operating Systems (Fall 2020), Programming for Correctness & Performance (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.

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.

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 LEADERSHIP

- Member of **Electronic Game Development Society** (2019 - present), Web Development Team member (2020 - present)
- Member of **RTC** (Rewriting the Code) (2019 - present)
- Member of **WiCS** (Women in Computer Science) (2019 - present)
- Member of **ACM** (Association of Computing Machinery) (2019 - present)