

# Thomas Huang

4th Year Applied Mathematics Student

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## EDUCATION

### UNIVERSITY OF CALIFORNIA, LOS ANGELES

September 2019 - Present | Westwood, California

MAJOR IN APPLIED MATHEMATICS, SPECIALIZATION IN COMPUTING

School of Letters & Sciences, B.S.

Cum. GPA: 3.799 / 4.0

## WORK EXPERIENCE

### DUNMOR | DATA ENGINEER INTERN

June 2022 - September 2022 | Woodland Hills, CA

- Cleaning/engineering raw data using **SQL** on over **200 million** records with **Amazon's Redshift** to fulfill tasks
- Engineered and developed filtering of top competitor's loaning metrics to be shown to investors
- Designed **clustering** logic of borrowers utilizing **forward filling** based on name and/or address

## PROJECTS

### MAZE SOLVER | PYTHON/PYGAME

2022

- Implementation of an interactive maze solver to trace a solution path, utilizing **PyGame** and relying on their **Sprites** for efficient cell visualizations.
- Allows user to indicate a start and end position for the maze, as well as placing obstacles/walls if desired.
- Allows user to choose between **BFS/DFS** for the path visualization.

### RECIPE APP | PYTHON

2021

- Recipe App is an interactive application geared towards helping the home cook find recipes catering to their pantry or cravings.
- Scraped the database of **~1,000** recipes from [www.SeriousEats.com](https://www.SeriousEats.com) with **Scrapy**, where the user's queries are fulfilled with **SQLite3**
- Designed and created user and display interface with **PyQt5**

### MINI ROGUE | C++

2020

- Mini Rogue is a multi-level dungeon adventure game playable on the command prompt or terminal.
- Utilized object-oriented design, **inheritance**, and **polymorphism** to develop player and monsters
- Developed dungeon level generator, combat, items, and abilities the user can utilize to eventually acquire the golden idol to win the game.

## SKILLS

### PROGRAMMING

Proficient:

Python • SQL (Postgres)

Familiar:

C++ • Java • HTML/CSS

## COURSEWORK

Formal Languages and Automata Theory  
Algorithms and Complexity  
Data Structures  
Mathematical Modelling  
Discrete Math  
Linear Algebra

## LANGUAGES

### ENGLISH

FLUENT

### SPANISH

INTERMEDIATE

## HOBBIES

Music • Food • Fashion •  
Video Games • Reading