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MAO LI

Education

- **University of California, San Diego**   **Expected June, 2020**
  B.S. Computer Science, Minor Economics
  GPA: **3.97 / 4.0**; *ranked **top 5%** of the class*; ***Warren College Provost Honors***
  Coursework: Software Development, Machine Learning, Data Structures, Algorithm, Operating System, Database, Calculus, Linear Algebra, Discrete Mathematics, Econometrics.

- **Pembroke College, University of Cambridge**   **Summer, 2018**
  UC Education Abroad Summer Program
  Coursework: Cyber Security, Microeconomics Theories, Mathematics – Graph and Number theory.

Projects

- **Furnitrade, a Web App for Students' Used Furniture Trading**   **Fall 2018 - Present**
  - Collaborated in an agile student team to develop a web-based platform for student's used furniture trading
  - Developed using Flask framework the server-side user authentication module and furniture information module
  - Implemented APIs for client side to interact with MongoDB database and tested them using Postman ADE
  - Facilitated the design of user interface using Mockingbot and implemented it with React and Material UI

- **Recommender System on Amazon and Yelp's datasets (Python)**   **November 2018 - Present**
  - Built category classifier on Amazon's dataset (~200,000), with accuracy ranking 2nd out of 355 on Kaggle
  - Designed the classifier from Sci-kit Learn's Linear SVM, extracting features from review text and purchase history
  - Developed collaborative filtering algorithm for purchase prediction on Amazon's data, ranking top 12% on Kaggle
  - Extended the recommender system for visit prediction on Yelp's dataset (~1,500,000), achieving 80% accuracy

- **Actors' Social Network Analyzer (C++)**   **March 2018**
  - Constructed actor relationships graph with hasp map and adjacency matrix, from given IMDB movie dataset
  - Developed revised BFS, DFS and Dijkstra's algorithm on the graph to predict future interactions between actors
  - Implemented k-core degeneration algorithm on the relationship graph to determine popularity levels of actors

- **Game2048 (Java)**   **February 2017**
  - Developed basic infrastructure and game components using inheritance, 2D array and standard I/O of Java
  - Implemented an event-driven and fully customizable graphic user interface using JavaFx
  - Optimized the game experience by effectively using polymorphic game components and multi-threading

Experiences

- **Research Assistant, "Cross-Border Supply Chains and Natural Disasters: The Role of Search Friction"**   **Fall 2018**
  - Collaborated with UCSD's PhD candidate to statistically analyze natural disasters' impact on global supply chain
  - Developed string processing tool with Python's NLTK to format human-inputted location data into administrative levels
  - Used Python's Pandas and Matplotlib libraries to visually represent and describe natural disaster and supply chain data

- **Computer Science Mentor, Meta Summit 2017**   **August 2017**
  - Shared Object-Oriented Design, software development, and other CS-related topics with high school participants
  - Helped high school participants develop basic Java programing skills and familiarize with Eclipse and Unix commands

- **Teaching Assistant, Engineers for Sustainable World Summer Camp, Chengdu, China**   **July 2017**
  - Assisted camp mentors with preparing, setting up and executing workshop sessions on sustainability topics
  - Guided camp students with solar charger building, virtual sustainable city modeling and other hands-on activities

Skills

- **Programming Languages:** Python, Java, C++, HTML/CSS, JavaScript, C, Bash Script, SQL.
- **Skills and Framework:** Backend Development with Flask, MongoDB and Postman; Frontend Development with React, Javascript and HTML/CSS; Machine Learning with Scikit-Learn, Numpy and TensorFlow; Data Analysis with Pandas, Matplot and NLTK.