Maggie Yan

(347) 735-1626 xiaoji.yan@baruchmail.cuny.edu Location **PORTFOLIO** **GITHUB** **LINKEDIN**

SKILLS

Python, C++, C, Java, RISC-V, JavaScript, Ruby, Ruby on Rails, Mongoose, MongoDB, SQL, SQLite3, PostgreSQL, Webpack, jQuery, Git, React, Redux, Node.js, Express.js, p5.js, HTML, CSS, Heroku, AWS

PROJECTS

Pintellect (Rails, ReactJS) live | github

An online visual discovery engine inspired by Pinterest and my love of art and science.

- Handled data validation and user authentication on the backend. Applied polymorphic associations to pull more data in one query to minimize queries to the backend.
- Designed two search algorithms: One allows users to search for topics and ideas from other users' pins; the other allows users to filter for specific boards and save pins.
- Developed a customized algorithm and applied SCSS best practices to resize randomly generated images onto a grid without distorting the aspect ratio.
- Implemented dynamic storage using AWS to improve image loading efficiency and user experience for saving high quality images.

Menutube (MongoDB, Mongoose, Express.js, ReactJS, Node.js) live | github

A video sharing platform that allows users to plan their meals based on nutrition needs, diet preference and ingredients on hand.

- Designed an algorithm and implemented Mongoose in the backend to manage four requests at once while maintaining normalized state for efficiency.
- Implemented Semantic UI in the frontend to allow users to drag videos to calendars.

Pathfinding Visualizer (JavaScript, p5) live | github

A visualiser that shows how algorithms find paths from a point of origin to a destination based on graph theory.

- Applied Dijkstra's algorithm, A*, BFS and DFS to find a path from any start point to a destination.
- Developed customized Priority Queue data structure. Implemented Vertex and Edge classes to mimic graph theory.
- Computed heuristic cost of A* algorithm to increase efficiency of pathfinding compared to Dijkstra's algorithm.
- Increased accuracy of heuristic cost estimations by utilizing octile distance.

GRE-Hangman (Python, Tkinter) live | github

A Hangman game using GRE vocabulary.

- Applied Tkinter to handle animation.

EXPERIENCE

Graduate Assistant

Baruch College Oct 2017 - August 2019

- Extract, clean and analyze data from company's annual 13-DA filings to research how hedge funds can influence a company's strategy.
- Recognized by professors for pulling the team to finish line and wearing multiple hats.

EDUCATION

Web Development - App Academy *Fall 2020*

Immersive software development course with a focus on full-stack web development, which entailed 1000+ hours of coding.

Stanford University - Data Structures (5 credits)

Stanford University - Discrete Maths and Computational theory (5 credits)

UC Berkeley - Computer System and Architecture (4 credits)

Harvard Extension School - Multivariable Calculus (4 credits)
Harvard Extension School - Linear Algebra (4 credits)
Baruch college - M.S Finance
Baruch college - M.S Accounting
University of Auckland - BCom. Economics and Finance