Gordon Lei

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EDUCATION

New York University Tandon School of Engineering	**Expected Graduation: May 2022**
Bachelor of Science in Computer Science, Minor in Game Engineering	*Brooklyn, NY*

- Cumulative **GPA: 3.66/4.0**; Dean's List: 2018 - 2019, 2019 - 2020
- Notable courses enrolled: Object-Oriented Programming, Design & Analysis of Algorithms, Introduction to Databases, Introduction to Operating Systems, Computer Networking, Computer Security, Software Engineering, Artificial Intelligence, and AI for Games

WORK EXPERIENCE

New York University Tandon School of Engineering	**Jan. 2021 – Present**
Software Engineering and Senior Design Teaching Assistant	*New York, NY*

- Assisting professor in managing the course material and course notes
- Advised class of 30+ students on projects such as suggesting potential projects and what tools they can use

New York University Tandon School of Engineering	**June 2019 – July 2019**
Object-Oriented Programming Teaching Assistant	*New York, NY*

- Assisted professor in teaching students Object-Oriented Programming in C++ in class and during office hours
- Worked with Travis CI and GitHub for class activities and homework to facilitate automation

PROJECTS

Augmented Library	**Sept. 2020 – Present**
Swift Backend Developer	*Brooklyn, NY*

- Developing iOS app where the user scan images with their phone to simulate reading a billboard flyer, presenting corresponding information through an AR experience
- Integrating and managing Firebase Cloud Firestore with the app to house data regarding flyer details
- Implemented Python script that used A* path-finding algorithm to navigate through the library

Happy Budget	**April 2021 - May 2021**
Backend Developer	

- Used Django + Python and PostgreSQL to create a web application that users can use to track spending
- Worked on creating the Django backend and integrating database to the backend with necessary methods to add, update, and remove information from the database

PCGRL for Angry Birds	**March 2021 -May 2021**
Developer	

- AI for Games project where open-source framework named PCGRL (Procedural Content Generation via Reinforcement Learning) was adapted to work with Angry Birds to attempt creating stable levels
- Used Python to create action space for agent and other class files needed for PCGRL to work with Angry Birds
- Created a "pipeline" where Python script would write XML files to and from Unity-based Angry Birds clone

11-Puzzle Problem and Hyper Sudoku	**Oct. 2020 - Dec. 2020**
Developer	

- Implemented an A* algorithm to move 11 tiles from the initial state to the goal state in a 3x4 board.
- Used Forward Checking and Backtracking Algorithm to solve the constraint-satisfaction problem of hyper sudoku (classic sudoku with the added constraint where four 3x3 sections are colored and the numbers one to nine appear only once in each row, column, colored section, and non-colored sections)

TECHNICAL SKILLS

- **Programming Languages:** C++, HTML/CSS, Java, JavaScript, Python, Swift
- **Tools/Framework:** Bootstrap, Express, Git, Node.js, MongoDB, React, SQL (PostgreSQL), Flask, Django