

Daniel Duan

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EDUCATION

- **Georgia Institute of Technology** Atlanta, GA
Bachelor of Science in Computer Science Expected May 2025
Courses: Intro to Object Orientated Programming, Data Structures and Algorithms(IP), Computer Organization and Programming(IP)

EXPERIENCE

- **Web Development Team**
Big Data Big Impact Feb 2022 - Present
 - Working with a team to design and build the website for the Big Data Big Impact club using **React** and **Bootstrap**
 - Created corporate sponsors page, researched and then implemented sponsorship tiers to improve club outreach to corporations
- **Undergraduate Student Researcher**
Low Cost Aerial Autonomy VIP Jan 2022 - May 2022
 - Part of autonomy subteam, implemented a hybrid A* algorithm for aerial path planning with motion primitives using **Python** and **NumPy**
 - Created and tested paths using generated libraries of aerial vehicle data in JupyterLab and created three dimensional representation of results with **Matplotlib**
 - Collaborated with team members to render generated paths in a simulated environment using modified JSBSim
- **Lot Associate**
Home Depot May 2021 - Jul 2021
 - Assisted customers with loading of vehicles, monitored and maintained store entrances, and was responsible for maintaining a sufficient amount of carts throughout the store
 - Learned and developed customer service skills through frequent and direct customer interactions
- **Head Chess Teacher**
Boise Modern Chinese School Sep 2018 - May 2021
 - Led instruction of entire school chess program, coordinating with school board to maintain over **50 student** program for multiple years
 - Trained and supervised assistant teachers, evaluated performance along with student and parent feedback to determine adjustments and teacher promotions
 - Created base curriculum and lesson structure, organized chess software to maintain lessons virtually through the pandemic

PROJECTS

- **Twitter Clone:**(Work in progress) Responsive web app using **Next.js** to create a clone of Twitter, styled using **Tailwind CSS**. User data concerning posts, likes, comments, etc. is stored using Firebase's Firestore, allowing for crud and basic social media operations. (Jun-Jul 2022)
- **Friends Social App:**(Work in progress) Created basic social webapp using **Ruby on Rails** that allows a user to create friends and make them into a list. Used SQLite to store personal information and friend data. Currently supports basic crud operations on created friend lists. (Jun-Jul 22)
- **Self-Driving Car Simulation:** Used HTML, Javascript, and CSS to generate car, road, and traffic visuals. Created artificial "sensors" on car and added simple neural network to randomize hundreds of car actions and save the most successful, then rerun with similar actions, resulting in at least one set of actions successfully avoiding generated traffic in each scenario.(May 22)
- **Regional Socioeconomic Prediction:** Data visualization subteam lead. Improved project frontend in **React** by redesigning the UI and synthesizing individual representations of country socioeconomic data into a single visualization, creating a world choropleth map using **D3.js** and pulling data from Natural Earth domain to accurately color code each country(Sep 2021-May 2022)

SKILLS

- **Programming** Java, Javascript, Python, Ruby, (HTML, CSS)
- **Other** React, Ruby on Rails, Next.js, Git, Microsoft Office
- **Languages** English, Chinese