

Stanton Zeng

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<https://stantonzeng.github.io/>

Education

- **University of California, Riverside** **Riverside, CA**
Bachelor of Science in Physics, Concentration in Computer Science, Expected Graduation: June 2022
Honors: Dean's List (Winter, Spring, Fall 2020)
Related Coursework (Physics): Classical Mechanics, Electricity and Magnetism, Thermal Statistics
Related Coursework (CS): Software Construction (Scrum, Waterfall, Agile...), Discrete Mathematics, Intermediate Data Structures and Algorithms, Machine Learning
Programming Languages: C++, Python(matplotlib, pandas, seaborn), MySQL, R, Java, LC-3, Unity, Git

Work Experience

- **University of California, Riverside - Bird Labs** **Riverside, CA**
Undergraduate Researcher *September 2020 - Current*
 - Joined a data science centered research group where I am analyzing hundreds of different cosmological simulations
 - Implemented a script in python that improved the extraction time of specific data points from output files
 - Utilizing simple statistical analysis techniques to measure said extracted data points
- **Raincross Boxing Academy** **Riverside, CA**
Tutor *June 2020 - August 2020*
 - Worked as a tutor for a nonprofit organization to assist ~20 high school students in need of academic help
 - Gave lectures and individual tutoring specifically on math, physics, and computer science

Projects

- **Chess**
<https://github.com/stantonzeng/solo-chess>
 - Built the game of chess from scratch using C++ so that I could practice and play offline on my own computer
 - Replicated most of the major functionalities(checking, castling, pinning, etc) and bug tested the software rigorously
 - Utilized Object Oriented Programming techniques and design patterns to contain the complexity of the code
- **Text-Based RPG** **Riverside, CA**
<https://github.com/stantonzeng/RYZ> *March 2021 - June 2021*
 - Collaborated in a group of 3 to build a text-based RPG through C++ and vim as a final project
 - Created the different character objects, their unique fighting styles, and their interactions with other characters to promote a more dynamic environment
 - Designed using the scrum development method
 - Worked on an extensive amount of unit testing and documentation using tools such as github, valgrind, makefiles, and googletest
- **Aerospace Systems** **Riverside, CA**
Project Member *September 2019 - Current*
 - Proposed and outlined the early stages of the payload project "Sonic Bloom", where we launch seed bombs within a wide range from our rocket
 - Designed to be an effective solution to environmentally significant areas negatively affected by natural disasters
 - Worked with a team of 6 to engineer the design of the launcher and how it will interact with our rocket
 - Now working on pure optimization of our system as well as the launcher's arduino software