

# Sam Alston

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## EDUCATION

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### Cornell University

Ithaca, NY

*Bachelor of Arts in Computer Science, Minor in Mathematics*

*Aug 2021 – May 2025*

- GPA: 3.5
- Relevant Coursework: Functional Programming and Program Correctness, Object Oriented Programming and Data Structures, Linear Algebra, Discrete Structures, Web Design and Programming, Statistics

## PROJECTS

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### Mapping Zipcodes | *Python, Atom, Git, Matplotlib, pandas*

December 2021 – February 2022

- Developed application to map zip-codes onto map of the United States
- Formatted with clean GUI for users
- Pulled from excel spreadsheet using online libraries

### Sports Ranking System | *Python, VS Code, Git*

May 2022 – June 2022

- Developed a ranking system for collegiate rowing teams
- Extrapolated online results from the regular season to predict results in the championship season
- Developed a formula using Ordinary Least Squares (OLS) technique utilizing factors such as weather, recency of the race, home advantage to quantify teams evenly

### ASCII Dungeon Game | *OCaml, Core, VS Code, Git, Dune, OPAM*

May 2022 – June 2022

- Developed game engine for retro-style to read .json dungeon files
- Read user input commands to move player, battle, collect items, etc.
- 1200+ lines of code with two team members, developed teamwork and large scale project skills
- Worked with creating documentation, .json, .txt, interface, and testing files

### Space Invaders | *Python, Atom, Git*

November 2021 – December 2021

- Built a modern version of Space Invaders from scratch in Python
- Ingrained object-oriented programming skills
- Organized code with controller and sub controller model

## TECHNICAL SKILLS

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**Languages:** Java, Python, OCaml, SQL, JavaScript, HTML/CSS

**Frameworks:** React, JUnit, OUnit, Dune

**Technologies:** Git, VS Code, Atom, Eclipse

**Libraries:** NumPy, pandas, Matplotlib, Core, PyExcel

## LEADERSHIP AND ACHIEVEMENTS

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- D1 Varsity Athlete - Lightweight Rowing (Member of the 1st Varsity Boat 2022)
- Big Red Leadership Institute - Member
- AP Scholar with Honor x 3
- 1520 SAT (790 Math, 730 Reading/Writing)