Sam Alston

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EDUCATION

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, Probability Models and Inference, Statistics

EXPERIENCE

Software Engineer Intern   June 2021 – August 2021
Q&A Payment Solutions   *Sea Girt, New Jersey*
- Implemented efficient Microsoft Excel compilation software using Python with pandas and PyExcel to analyze multiple pricing documents complete with Unit testing files
- Worked on full-stack web application using HTML/CSS/Javascript with SQL database processing 250,000 cash orders totaling $1.4 billion in the past year
- Collaborated with team to manage secure manual order system for new customers

PROJECTS

ASCII Dungeon Game Engine | *OCaml, Core, VS Code, Git, Dune, OPAM*   September 2022 – December 2022
- Developed game engine to read .json retro-style dungeon files
- Read user input terminal commands to move player in real time
- Added battle and cut scene system to enhance experience
- Wrote 2000+ lines of code with two team members, developing teamwork and large scale project skills
- Worked with creating documentation, .json, .txt, interface, and testing files

Sports Ranking System | *Python, VS Code, Git*   May 2022 – June 2022
- Produced 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

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

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

Languages: Java, Python, OCaml, SQL, C++, JavaScript, HTML/CSS, R, PHP
Frameworks: React, Node.js, GraphQL, JUnit, OUnit, Ajax, Dune, Bisect
Technologies: Git, VS Code, Atom, Eclipse, Amazon Web Services
Libraries: NumPy, pandas, Matplotlib, Core, PyExcel, jQuery

LEADERSHIP AND ACHIEVEMENTS

- Division 1 Varsity Athlete - Lightweight Rowing
- Big Red Leadership Institute - Member
- AP Scholar with Honor x 3
- Proficiency in Spanish, American Sign Language
- 1520 SAT (790 Math, 730 Reading/Writing)