

# Alex Shaw

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## EDUCATION

**University of Richmond, VA**

August 2019 - May 2023

Bachelor of Science in Computer Science with a Concentration in Data Science and Statistics,

GPA 3.2

Minor in Business Administration

- Relevant courses: Data Structures, Discrete Structure, Software Systems Development, Computer Organization, Algorithms, Linear Algebra, Design and Programming Languages

## Computer Skills and Languages

- |            |                 |             |
|------------|-----------------|-------------|
| • Java     | • JavaScript    | • MATLAB    |
| • C/C++    | • SQL           | • Ada       |
| • Python   | • MIPS Assembly | • Smalltalk |
| • RStudio  | • Logisim       | • Lisp      |
| • HTML/CSS | • Fortran       | • Scheme    |

## EXPERIENCE

**Realtime Sports, Boston, MA (Remote)**

August 2021 – January 2022

*Marketing Intern*

- Facilitated communication with diverse businesses to establish strategic partnerships with Realtime Sports.
- Implemented marketing strategies to enhance brand visibility and drive user acquisition for the Realtime app.
- Engaged in a comprehensive observation of front-end app development using React, gaining valuable insights into the process.
- Sustained the engagement of four individuals, enticing them to persistently partake in Realtime Sports wagering for a period exceeding three months subsequent to the promotional campaign.

**International Collegiate Programming Contest, Richmond, VA**

February 2022 – February 2022

*Contestant*

- Fostered effective collaboration and communication with teammates during the 5-hour duration.
- Devised strategic roles and formulated relevant questions for teammates to fulfill their responsibilities effectively.
- Attained a notable position in the rankings upon the culmination of the contest, subsequently being bestowed with certificates of commendation for our achievements.

**EL VRAJ Corp, Chesapeake, VA**

April 2020 – June 2020

*Intern, Accounting*

- Verified a 5% increase in revenue by successfully resolving rejected claims.
- Provided guidance and consolation to the primary founders regarding the advanced functionalities of Microsoft Excel and Word.
- Acquired proficiency in healthcare software applications such as Caretime and Zemed. Employed these applications with strategic precision to effectively resubmit claims that had not been duly remunerated in their entirety.

## PROJECTS (Refer To <https://Alexshaw777.Github.io/>)

### CPUs in Logisim and C++

- Wrote an Assembler in C++ that turns a file containing MIPS assembly into a file that contains hex-encoded machine code.
- Designed a processor in Logisim that processes the binary (hex) encoded instructions from the assembler.
  - Encapsulates the Register file, ALU, Instruction Memory, Program Counter, Data Memory and Control Head
- Added memory mapped I/O functionality in Logisim to processor through a central I/O bus and added keyboard and terminal functionality.

### Intersection Simulation in C++

- 4 lane intersection coded (eastbound (EB), westbound (WB), northbound (NB), southbound (SB)) and 3 different types of vehicles implemented (cars, SUVs and delivery trucks).
- Traffic light controlled through random number generation.
- Simulation dependent on integer-valued clock for vehicle movement.
- Used test-driven development to code and develop the simulation.

### Website in HTML/CSS/JavaScript

- Designed two websites (personal portfolio and Computer Science Research prototype).
- Used principles and insights of Human Computer Interaction to help develop website flow and architecture.

## LEADERSHIP & SKILLS

**Spider Ventures (SV), University of Richmond, VA**

April 2021 – April 2022

*Upper-level Associate*

- Shaped the beginning of SV through technology speakers and advertising.
- Formed a podcast discussing different sectors of technology like cybersecurity, AI, Quantum Computing and IT