

Zijian Xun

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Education

Carleton College | Bachelor of Arts in **Computer Science, Mathematics** (Expected to graduate early) Sep 2023 – Jun 2026

- **GPA:** 3.78/4.00
- **Relevant Coursework:** Intro to Computer Systems, Software Design, Social Computing, , Algorithm , Multivariable Calculus, Linear Algebra, Mathematical Structures, Probability

Shanghai Foreign Language School, China | High School

Sep 2020 – Jun 2023

Experience

Monster Beverage Corporation | Business Development APAC Intern

Jun 2024 – Aug 2024

- Analyzing market data in the APAC region and researching success stories of high-sales SKUs in different areas.
- Building regional sales models using regression to predict product "Rate of Sales," adopted by Market Director.
- Automating the data cleaning process, reducing a two-week workload to 5 minutes.

Clear.md Inc dba Vidscrip | Customer Success Engineer Extern

Dec 2024 – Jan 2025

- Will be in charge of collaborating with the engineering team to prioritize and fix bugs on the Vidscrip platform, implementing features to enhance user experience, and testing and deploying technical updates .

Projects

Pioneer Research Program

Jun 2022 – Aug 2022

- Worked with Professor Tim Chartier from Davidson College, wrote a paper about "Adjusting Elo Method to Separate Car and Driver in Formula One Racing", published on SIAM Undergraduate Research Online.
- **Publication:** *From Pole to Podium: Adjusting Elo Method to Separate Car and Driver in Formula One Racing* [SIAM Undergraduate Research Online, Feb 6, 2024]

Shanghai Youth Science Innovation and Practice Workstation

Jun 2021 – Aug 2021

- Wrote a research paper independently, made three defense presentations; published on IOP Journal of Physics & selected as the top 10 in Shanghai.
- **Publication:** *Determination Of Basketball Interference Ball Violation Based on Visual Recognition Technology Electronic Referee Artificial Intelligence Algorithm* [Applied and Computational Engineering, Aug 23,2023]

Software Design

- Worked in a three-person team to create a name generation and analysis website, connecting to the SSA Database, which contains 140 years of data. Supported multiple query and search methods.
- Personally responsible for the overall back-end and the development of the HTML portion for the site's mini-games, using complex SQL queries and JavaScript, while also handling the connection between the webpage and the server.
- **GitHub:** https://github.com/harry-xun/Normalist_Name.git

Social Computing

Independently conducted two research studies on predicting box office revenue using social computing:

- Analyzed and compared a large volume of literature and studies from 2005 to the present, completed a 9-page literature review which focuses on summarizing and comparing the accuracy, generalizability, and underlying logic of various prediction methods.
- Using the Wikipedia API, studied the weekly box office performance and corresponding Wikipedia article edit counts for 40 films released in 2023, concluded that the number of Wikipedia article edits serves as a reliable real-time indicator of audience engagement and reputation towards the movie.
- **GitHub:** <https://github.com/harry-xun/Social-Computing.git>

Automatic Basketball Referee System

- Developing a system for detecting various basketball fouls across the court using machine vision and image segmentation, aimed at small to medium-sized basketball leagues.
- Formed a three-person team, with myself responsible for all technical aspects, participating in the Impact Challenge business contest, currently in the back-end development phase.

Skills & Abilities

Technical Skills

Proficient: Python, C++, C, SQL, Git, VS Code, Power BI, Excel, Web Development, LaTeX, Social Computing

Familiar: Java, JavaScript, HTML/CSS, React, Pandas, OpenAI API Calling, Flask, R, Assembly Language

World Languages: Mandarin (Native), English (Fluent)

Awards

- 2022.9 Platinum Grade in USA Computing Olympiad 2021-2022 (Promotion ratio to platinum division 2.2%)
- 2022.5 Honor Roll Prize in Euclid Math Contest 2022(Score 88/100 Rank 95/16733 Top 0.57%)
- 2021.7 Finalist Prize in High School Mathematical Contest in Modeling 2021(Top 46/705 teams)
- 2021.3 High Distinction Prize in Australian Mathematics Competition 2021(Top 5% internationally)
- 2022.10 Top Gold Prize in Math Kangaroo China 2022(Top 3% nationwide)