

Zijian Xun

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EDUCATION

Carleton College | Northfield, MN

Sep 2023 – Jun 2027

Bachelor of Science in *Computer Science, Mathematics* | **GPA:** 3.9/4.0

Relevant Courses: Machine Learning, Abstract Algebra, Natural Language Processing, Intro to Computer Systems, Software Design, Social Computing, Human Computer Interaction, Algorithm, Computability and Complexity, Programming Language

INDUSTRIAL EXPERIENCE

Software Engineering & AI Extern | **Surlesol, LLC** | Cottage Grove, MN

Nov 2025 – Present

- Architected a multilayer perceptron (MLP) model from scratch to automate complex decision-making for an AI-driven Texas Hold'em coaching platform.
- Built a fully functional Texas Hold'em tournament simulator serving as a backtesting framework for strategy evaluation.
- Managed full-lifecycle development using Git, executing 50+ commits and 12 merge requests to implement system-level architecture changes.

Customer Success Engineer Extern | **Clear.md Inc dba Vidscript** | Minneapolis, MN

Dec 2024 – Jan 2025

- Developed Google Maps API calls for the company's application to enhance location-based user interaction.
- Built a React-based front-end interface integrated with TablePlus for streamlined data organization.
- Designed and implemented a Google Chrome extension to categorize open tabs and send reminders for inactive ones.
- Improved user experience by optimizing workflow efficiency and reducing manual organization efforts.

Business Development APAC Intern | **Monster Beverage Corporation** | Corona, CA

Jun 2024 – Aug 2024

- Analyzed market data in the APAC region to identify high-performing SKUs and sales trends.
- Built regional sales models using regression techniques to predict product "Rate of Sales."
- Automated data cleaning processes with Python, reducing a two-week manual workload to five minutes.
- Enabled the Market Director to make data-driven decisions, improving forecast accuracy and efficiency.

SELECTED SCHOOL PROJECTS

Student researcher | **Carleton College** | Northfield, MN

Apr 2025 – Present

Worked under Professor Sneha Narayan from Carleton College

- Researched how users utilize Discord features and third-party bots to form online communities.
- Worked 8 hours weekly during spring term and 40 hours per week over 10 weeks in the summer and 5 weeks in the winter.
- Studied cutting-edge HCI research methods and findings; conducted 12 one-hour interviews and performed axial coding on transcripts.
- Expected to submit the thesis by February 2026.

Large Language Model Training | **Carleton College** | Northfield, MN

Sep 2025 – Dec 2

- Pretrained and fine-tuned a large language model from scratch for automated Python code repair.
- Used LLaMA-3.2 as the base model, pretraining on 627,000 Python source files and fine-tuning on 1.2 million JSON samples pairing buggy code with corrected implementations.
- Trained with 2 epochs of pretraining and 50 epochs of fine-tuning, achieving successful fixes on 35% of held-out test cases.

Software Design | **Carleton College** | Northfield, MN

Jan 2024 – Mar 2024

- Created a name generation and analysis website utilizing SQL and JavaScript to query the SSA Database.
- Designed and implemented back-end architecture, integrating SQL with server-side processing.
- Developed HTML-based mini-games and ensured seamless interaction between the webpage and server.
- Enhanced user engagement with multiple query methods and dynamic visual representation.

Researcher | **Pioneer Research Program**

Jun 2022 – Aug 2022

Worked under Professor Tim Chartier from Davidson College

- Researched the application of Elo rating adjustments in Formula One racing to separate car and driver impact and conducted statistical modeling and analysis
- Publication: [*From Pole to Podium: Adjusting Elo Method to Separate Car and Driver in Formula One Racing*](#) [SIAM Undergraduate Research Online, Feb 6, 2024]

SKILLS

Languages: Python, C, C++, Java, JavaScript, SQL, R, Assembly, HTML/CSS

Frameworks/Tools: React, Flask, Git, LaTeX, Pandas, Power BI, VS Code, TablePlus

Technical Proficiencies: Machine Learning, Statistical Modeling, NLP, Software Design, Axial Coding