SIMON **YANG**

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Education

University of Michigan, Ann Arbor	Expected May 2023
B.S. Computer Science, Math Minor	GPA 3.83

• James B. Angell Scholar, William J. Branstrom Prize Recipient (Top 5% of Class)

Skills

Languages: C++, C, Lua, Python, SQL, MATLAB
Technologies: Git, MySQL, Linux, Bash, Vim
Coursework: Data Structures & Algorithms, Foundations of CS, Computer Organization,
                    Multivariable & Vector Calculus, Linear Algebra, Statistics

Experience

Belvedere Trading — Chicago, IL
Incoming Software Engineering Intern — Jun 2022 – Aug 2022

Flux TTT Servers — Ann Arbor, MI
Founder, Lead Game Developer — Jul 2020 – Present
A Garry's Mod (video game) community startup with custom scripted servers
• Design modular code framework library for accelerated development and cleaner maintenance
  • Develop fun minigames, loot box gambling, player trading in Lua to elevate player experience
  • Enhance game integrity by building C++/Lua anti-cheat system to detect and ban **900+** hackers
  • Optimize MySQL database and client/server networking by **~100x** through delta update
  implementation, **reducing crashes from malicious DoS attacks by 87%** and **increasing scalability**
• Supervise a collaborative team of 21 staff moderating servers and forums to cultivate user relationships
• Outpace competitors' player retention, surging flagship server's global ranking to **#2 out of 1464** servers
• Spearhead business growth to **43,000 players** and **$5,000/month in microtransaction sales** from store

Michigan Investment Group — Ann Arbor, MI
Vice President of Recruiting, Quant Project Lead — Jan 2021 – Present
• Organize recruiting events, marketing campaigns, and interviews, **increasing applications by 49%**
• Revamp application process with executive board to **reduce recruiting bias** and ensure standardization
• Led Statistical Arbitrage team by designing interface, managing sprints, and performing code reviews

Twickenham Advisors — Huntsville, AL
Wealth Management Intern — Jul 2021 – Aug 2021
• Compiled and classified ~800 frontend transactions for importing into new software
• Drafted market reports and synthesized investment meetings with private equity wholesalers

Projects

Portfolio Risk	Built optimal portfolio allocation model by maximizing Sharpe ratio and trained neural networks to predict covariance matrix and stock price (Python)
Stock Exchange	Organized a fast order book that read input orders, simulated buys & sells, and calculated optimal entry & exit prices while tracking daily trader profits (C++)
Assembly Simulator	Created a program based on custom ISA that converted assembly language into machine code and simulated it with pipelining and caching (C)
SQL Emulator	Programmed a SQL emulator with index generation for faster querying (C++)