

# Spencer Ye

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## EDUCATION

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- Johns Hopkins University** | 4.0/4.0 GPA May 2027, Baltimore, MD
- Bachelor of Science in Computer Science; Applied Math Minor
  - Relevant Coursework: Parallel Computing for Data Science, Algorithms, Artificial Intelligence, Data Structures
- Homestead High School** | 4.0/4.0 GPA June 2023, Cupertino, CA
- Valedictorian, Student-Athlete of the Year, 4-Season Track & Cross Country Captain

## WORK EXPERIENCE

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- Software Engineering Intern** | *Piotech Inc.* July 2024 - August 2024
- Identified inefficiencies in retrieval of manufacturing activity data by analyzing C++ code with gdb
  - Crafted and implemented optimizations leading to 18% performance improvement in runtime data retrieval
  - Initiated and built prototype for the company's first Monkey Testing System (MTS) using Python
  - Documented the MTS framework to enable seamless development by future teams, ensuring project continuity
  - Improved accuracy, clarity, and professionalism of technical presentations by inter team collaboration
- Founding Engineer** | *Kalea Studio* June 2023 - June 2024
- Designed and developed e-commerce website, reaching 2,500+ visitors, using JavaScript, CSS, and HTML
  - Pitched to investors securing \$3,000+ in funding for development of 20+ new products
- Student Researcher** | *Aspiring Scholars Directed Research Program* March 2022 - June 2023
- Built machine learning models and performed hyperparameter tuning that classified 100,000+ molecules as natural or synthetic with near 90% accuracy
  - Developed visualization figures that contributed to a preprint paper with 340+ downloads using Matplotlib [\[Link\]](#)

## PROJECTS

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- 24 Game Solver** [\[GitHub\]](#): *Automatic '24' solver for online game rooms*
- Developed an algorithm to categorize hands as solvable or not with 99.7% accuracy
  - Won first place on the International July 2024 leaderboard on 4nums.com, avoided all anti-bot countermeasures
  - Developed with Python, using libraries Pyautogui, OpenCV, Selenium
- Zoom Attendance Tracker** [\[GitHub\]](#): *Online classroom attendance and participation tracking tool*
- Used by local high school teachers to assess scores for 300+ students
  - Developed with Python
- Charity Search Engine** [\[GitHub\]](#): *Donation social media site that streamlines the donation process*
- Won "Best New Venture Hack" out of 200+ participants at HopHacks 2024
  - Developed with JavaScript, CSS using Bootstrap, HTML

## OTHER INVOLVEMENT

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- Varsity Track & Field**
- USA Track Coaches Committee All-Region & All-Conference Second-Team honors
- Association of Computing Machinery (ACM) Executive Board Member**
- Co-directed Regional ICPC tournament with 200+ total attendees in a team of 6

## SKILLS

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**Languages** | C / C++ (Win32, GDB), Python (PyTesseract, OpenCV, Pillow, Selenium, Pyautogui), OCaml  
**Web Technologies** | JavaScript / TypeScript (React, JQuery, Hono, Vite), CSS (Bootstrap), SQL (SQLite)  
**Dev Tools** | Git, Linux (Ubuntu), Jupyter Notebook, npm, Docker