Zachary Szeto

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EDUCATION

Worcester Polytechnic Institute   **August 2022 - May 2026**
- Bachelor of Science in Computer Science - GPA: 3.75   *Worcester, MA*
- Relevant Coursework: Software Engineering, Systems Programming, Algorithms, Object-Oriented Design, Networks, Operating Systems, Intro to Program Design, Foundations of CompSci, Intro to Machine Organization and Assembly

SKILLS

Java • JavaScript • NodeJS • Python • C++ • C • Racket • HTML and CSS • React • MySQL • MongoDB • PostgreSQL • SQLite • MatLab • IntelliJ • Eclipse • Visual Studios • WebFlow • Figma • Unity Engine • Git • Framer

PROJECTS & RESEARCH (https://github.com/zachszeto/zachszeto)

Chess Engine   **June - August 2023**
- **C-based** chess engine employing bitboards, bit manipulation, and efficient move generation techniques.
- Utilizes **smart search** techniques to prune bad moves and focus the search to find the best moves. Stores the most promising moves and employs multi-core processing to evaluate positions and select moves very quickly.

DSA Visualizer   **April - June 2023**
- **Innovative Visualization Tool** powered by **React**, designed to aid students in mastering Data Structures and Sorting Algorithms. Offers interactive visualizations, step-by-step explanations, and real-time code demonstrations to provide an engaging and comprehensive learning experience for students.

Transportation Data Analysis and Optimization   **March - May 2023**
- **Developed** a robust **Java** program to identify GPS location, travel hubs, and overlapping flights of Southwest and Delta by analyzing flightmaps.
- **Analyzed** America's highway network to compute the shortest path from the East coast to West coast.

Discord Music Bot   **June - July 2023**
- **JavaScript** and **Node.js** based Music Bot that leverages Discord's powerful API. Seamlessly responds to users' commands and swiftly accesses the internet to fetch specific songs and playlists.

VOLUNTEER WORK

Universal Education Initiative   **May 2023 - Present**
Website Developer
- **Designed** and **built** the organization's website using WebFlow and Figma
- **Produced** computer science-related curriculum for children in developing countries specifically Merida, Venezuela

Mashpee Recreation   **June 2018 - August 2019**
Camp Counselor
- Volunteered 30 hours a week designing and implementing activities that encouraged curiosity and creativity among campers (k-8th)

Work Experience

Worcester Polytechnic Institute   **June 2023 - Present**
Assistant Athletic Trainer
- **Facilitated** essential medical support and care to student-athletes, assisting in injury prevention, assessment, and rehabilitation within the university's athletic program

ACTIVITIES

FRC and FLL Robotics
Programmer and Student Mentor
- **Founding member** of the Brain Busters Robotics Team, **a STEM nonprofit** providing extracurricular STEM opportunities to students 5-12 in the form of **robotics competitions & education**.
- **Facilitated & mentored** younger students in FLL, mentored & supported build teams.
- **Massachusetts State Champion** in FIRST Lego League and went to the World Championship in Detroit, Michigan

Society of Asian Scientists & Engineers
Event Committee
- Developed programming to aid incoming freshmen acclimate and presented proposals to the executive board