Yuchen Xin

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Education

University of Washington, Allen School of Computer Science　　Expected Graduation: June 2025
Majors: Computer Science and Physics　　GPA: 3.95/4.00

Interlake Senior High School　　2019 – 2023
Gifted Program | SAT: 1550/1600, IB Diploma: 43/45, AP Scholar with Distinction　　GPA: 4.00/4.00

Work Experiences

Intern | [PIONEER Experiment](), University of Washington Physics Research　　2022 – 2023
- Applied GPU photon ray tracing using NVIDIA CUDA to optimize a pion particle decay simulation.
- Collaborated with PhD students on scientific visualization and data analysis using Geant4 and NumPy.
- Presented research to a supervising professor and attended computational physics colloquia.

Crew Team Member | Jamba Juice　　2022 – 2023
- Won Employee of the Month for November 2022.
- Handled cash, prepared food, and performed janitorial duties in a fast-paced work environment.

Volunteer Bilingual Teacher | [Little Fir English Summer Camp]()　　2017 – 2019
- Won 2 gold President's Volunteer Service Awards for 300+ hours of exemplary volunteer service.
- Taught English with a focus on pronunciation and listening for multiple classes of 30+ rural Chinese students.
- Received positive 360-degree feedback from students, parents, and colleagues.

Projects and Awards

Co-Founder | 3rd Place at Technology Student Association nationals | [Toss-It]()　　2021 – Present
- Led a team of 4 to create a real-time classroom quizzing platform using Node.js and socket.io.
- Coordinated with Bellevue School District administrators to launch Toss-It in high school classrooms.
- Won 3rd place at the national Technology Student Association competition against teams from 30+ states.

Team Lead | 1st Place at DubHacks '23 | [Echolocation]()　　Oct 2023
- Led a team of 3 to build an innovative real-time 2D music creation app using Node.js and socket.io.
- Won 1st place in the Synergy Track at the University of Washington's annual hackathon among 500+ competitors.

Independent Researcher | [Fluid Simulations]()　　2021 – 2022
- Wrote a research paper on a self-designed quadtree optimization of 2D Eulerian fluid simulation.

Extracurriculars

Model Rocket Engineer | [NASA Student Launch Challenge]()　　2019 – 2023
- Built a rocket with mechanical landing legs and flight computers and launched to 4,000 feet in a team of 9.
- Presented detailed technical design essays to NASA as part of the national Student Launch Challenge.

Vice President | Interlake Game Development Club　　2020 – 2023
- Guided 100+ students to develop teams and create award-winning videogames in Unity.
- Led 20+ students to the national Technology Student Association competition in Dallas, Texas.

Skills

- **Computer Science Areas:** Computational science, full-stack software development, Unity game development
- **Programming Languages:** Java, C, C++, C#, Python, GLSL
- **Software:** NumPy, Geant4, NVIDIA CUDA, Node.js, React.js, Express, Socket.io, MongoDB, React Native
- **Human Languages:** Bilingual English and Chinese, conversational Spanish