

Yihong Song

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EDUCATION

Duke University

Aug. 2022 – May 2026

Bachelor of Science, Computer Science & Mathematics (GPA: 4.00)

Durham, NC

Related Coursework: CS201 Data Structures and Algorithms, MATH221 Linear Algebra and Applications

Riverside High School

Aug. 2018 – Jun. 2022

Advanced High School Diploma (GPA: 4.63)

Leesburg, VA

Related Coursework: Multivariable Calculus, AP Computer Science, AP Physics C, AP Chemistry, AP Calculus BC

EXPERIENCE

Founder

Apr. 2022 – Present

[Blue Dev Discord Bot](#)

Durham, NC

- Built Discord bot to help 1500+ Duke freshmen in registering for popular classes
- Utilized DukeHub REST API to send live notifications of course registration openings to individual students
- Implemented personalized course reminders through a PostgreSQL backend hosted on Oracle Cloud

Eastern Section Director

Jan. 2021 – Present

[Project Code Foundation](#)

Palo Alto, CA

- Collaborated virtually with Bay Area students to host CS discovery workshops for students across the world
- Lectured to 150+ participants on Discord bots, machine learning, and website design
- Mentored programming in Java and Python during 12-hour hackathon

President & Webmaster

May 2021 – Jun. 2022

Riverside High School National Honor Society (NHS)

Leesburg, VA

- Led the largest NHS program in Northern Virginia (310 members)
- Facilitated the largest academic tutoring program in Loudoun County (586 tutoring pairs)
- Empowered members to contribute over 6000 annual service hours to the Northern Virginia community
- Communicated directly with Riverside High School administrators in weekly planning meetings
- Directed the first student presentation at Loudoun County Administrative Leadership Team Conference

Intern Instructor

Jun. 2019 – Aug. 2020

[STEMteachersNYC](#)

New York, NY

- Hosted JavaScript workshop for NYC high school science educators to integrate programming into physics and STEM curriculum
- Led team of 18 interns and educators in testing new curriculum through role plays and hands-on physics experiments

PROJECTS

[Starzam](#) | *Python, Tensorflow, Scikit-learn, NumPy, pandas, Matplotlib, Git*

Aug. 2021 – May 2022

- Developed a novel asteroseismic (star-quake) technique to measure stellar properties using light curves
- Implemented fourier analysis and a deep learning neural network inspired by Shazam App
- Connected and collaborated with astrophysics experts from NASA and ESA
- Received category 2nd Place award at Regeneration Science and Engineering Fair (RSEF)
- Continuation of previous year's ML research: [Predicting Stellar Activity through Asteroseismic Analysis](#)

[Riverside NHS Portal](#) | *Next.js, Firebase, Tailwind*

Jun. 2021 – May 2022

- Built dynamic web app to algorithmically pair NHS members with tutees and community opportunities
- Implemented identity verification through Google OAuth and built personalized profiles with Firebase backend
- Improved volunteering experiences for 300+ Riverside NHS members, officers, and administrators
- Collaborated with Loudoun County Department of Digital Innovation for project certification

TECHNICAL SKILLS

Languages: Java, Python, JavaScript, HTML/CSS

Libraries/Frameworks: React, Node.js, Next.js, Tailwind, Firebase, MongoDB, TensorFlow, Scikit-learn, Discord.py

Developer Tools: Git, VS Code, Vercel, Google Cloud Platform, Oracle Cloud, Docker, Figma, Maya

Foreign Languages: English, Mandarin Chinese, French