

Yafee Khan

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EDUCATION

Yale University – New Haven, CT

2025-2029

Intended Degrees: B.S. in Computer Science and B.S. in Intensive Physics

Relevant Coursework: Intensive Physics, Discrete Mathematics, Multivariable Calculus, and Data Structures

Activities: Yale Quantitative Finance Club, Yale ICPC Club, Yale Undergraduate Math Society, Hackathons (2X winner)

Massachusetts Institute of Technology - *BWSI AUV Program* - Cambridge, MA

Summer 2024

Worked with underwater submarines to simulate autonomous warfare. Used linear algebra and vector calculus, among other mathematical methods, combined with Python, C++, ROS2, and OpenCV to create algorithmic network systems for evasion, targeting, and pursuit of opponent submarines

University of Connecticut – Storrs, CT

2022-2025

Relevant Coursework: Algorithms and Complexity, Systems Programming, Software Engineering, Calculus 1-3, Statistics

Edwin O. Smith High School – Storrs, CT

2021-2025

PROFESSIONAL EXPERIENCE

Swordfish

2026-Present

- Built a full-stack AUV mission simulator (C++17/TypeScript) integrating 6-axis physics and live ocean streaming
- Applied cross-disciplinary knowledge across hydrodynamics, control theory, and geospatial systems to independently scope, architect, and deliver a complex multi-component project

YHack, *VP of Outreach*

2025-Present

- Team gathered 800+ Attendees and 30+ Sponsors, Raised \$100K+
- Managed over \$150K worth of hardware, ensuring compliance and functionality

Code Ninjas - Manchester, CT

Summer 2025

Instructor

- Worked on a team to design a high-engagement coding and physics-based curriculum for developing students
- Delivered instruction to a large cohort of students on math, probability, and introductory game theory

Yale Vision Lab - New Haven, CT

2023-2024

Student Research Intern

- Manually marked and developed several computer vision ML models; iterated model architecture
- Produced several model versions with over 12,000 data points, creating semi-supervised pipelines
- Developed software for a Yale Medical School team for tracking facial ptosis and facial transplants

LEADERSHIP EXPERIENCE

Equity New England Science Bowl, *Founder*

2024-Present

- Networked with dozens of schools around New England and organized sponsors and donors for a free tournament
- Co-wrote hundreds of science and math questions and built an LLM-based pipeline to organize rounds of questions

Science Bowl and National Ocean Science Bowl (NOSB), *3x Co-Captain and 2x Captain*

2021-2025

- Top 12 USA in 2025 for NOSB, 3x Top 2 in CT for Science Bowl
- Yale Physics Olympics: Runner-up 2024, Champion 2025

SKILLS AND INTERESTS

- *Proficiencies*: Math (Discrete Math, Calculus, etc.), Proofs, C/C++, Python, JavaScript, Full-stack, Git, Machine Learning (OpenCV, TensorFlow), AI agent harnessing, UNIX, CAD, Excel
- *Interests*: Stochastic Calculus, Probability, Game Theory, Robotics, Full-stack SWE, Theoretical Physics