

Rohan Madhok

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Highly motivated and detail-oriented; passionate about creating impactful solutions; committed to learning and applying analytical skills to solve complex problems

Education

The Lawrenceville School

Lawrenceville, NJ

Sophomore (Expected Graduation: 2027): High Honors and Dean's List

- Relevant Coursework: Calculus BC, Physics, Chemistry, Biology
- Additional Coursework:
 - Computational Neuroscience (University of Washington, In Progress)
 - Generative AI for Developers (Google)
 - CS50: Introduction to Computer Science (Harvard University, In Progress)

Leadership

- Founder and President: Machine Learning Club
 - Currently building a self-driving robot to make deliveries across campus, leveraging machine learning, computer vision, probabilistic sensor fusion and optimization
- Co-Founder and Co-President: Motorsports Engineering Club, Aerodynamics Club
- AI Council: Discuss research, experiment with new tools and evaluate campus AI projects

Project Experience

GradeRight (Beta Testing)

- Designed and developed an advanced AI grading assistant designed for teachers, built with Swift for iOS and macOS
- *GradeRight* enables teachers to evaluate assignments efficiently, provide meaningful feedback, and ensure objective grading, with an intuitive and user-friendly interface
- It streamlines, standardizes, and enhances student assessment by leveraging LLMs such as Gemini 1.5 Flash/Vision, OpenAI o3-mini, and Anthropic's 3.5 Sonnet

SocrAI:

- Developed *SocrAI*, an AI chatbot who serves as a Socratic tutor, allowing teachers to set pre-prompts from templates or custom inputs while providing full visibility into student interactions, ensuring transparency in AI usage
- Built with React (TypeScript), Firebase, and Anthropic's 3.5 Sonnet

Extracurricular Activities:

- Neuroscience Club, Sustainability Council, Chess Club
- Junior Varsity Squash *December 2023 – present*
- Junior Varsity Crew *February 2024 – June 2024*
- Science Olympiad: Represented Princeton Day School *2021 – 2023*
 - State (NJ): Wheeled Vehicle, Anatomy and Physiology, Bio-process Lab, Write-it Do-it (Top 10 in 5 events)
 - Regional: Wheeled Vehicle, Anatomy and Physiology (Top 5 in 3 events)
- Princeton Day School Hackathon (“PantherHack”)
 - Won *Best Social Good Award* *2023*
FreeFoods.us, an online platform that enables users to donate and pick up surplus food within local communities, reducing food waste and supporting those in need
 - Won *Best Beginner Hack Award* *2022*
PantherKnight, a multi-level scrolling platformer, built in HTML and JS
- Chess
 - Competed in National Middle School Championship *2017 – 2023*
 - Competed in National High School Championship *2023*
 - Competed in NJ State Championship *2017 – 2023*
 - 3rd Place in NJ State Championship *2019*

Community Experience:

- Homefront – Assisted Senior Citizens with technology by teaching them how to use smartphones, email, and online services

Technical Skills

- Programming Languages: HTML/CSS, JavaScript (React, TypeScript, Node.js), Python, Swift, C/C++
- Frameworks/Tools: MATLAB, TensorFlow, PyTorch, Unity, Firebase/Google Cloud, NumPy, VSCode, Xcode, Github
- AI & Data Science: Machine Learning, Computer Vision, Data Analysis, Probabilistic Sensor Fusion
- Software Development: Game, Web, App, and Full-Stack Development