Mihir **Patil**

Computer Science Freshman at Purdue University

+1 914-261-2903 | mihirpatil@purdue.edu | 0xMihir | 0xMihir

Education

Purdue University — *West Lafayette, IN*

B.S. Computer Science — *May 2025*

- Relevant coursework: Object Oriented Programming, and Calculus 3
- Planning concentration in Machine Intelligence, Systems Software, and Algorithmic Foundations

Experience

Purdue Space Program — *West Lafayette, IN*

Avionics Subteam Member — *September 2022 - Present*

- Developed an SPI-based ADC driver for the RP2040 microcontroller using C
- Designed PCB components for the flight computer development board

b01lers CTF Team — *West Lafayette, IN*

Member — *September 2022 - Present*

- Contributed to solving CTF challenges in web, blockchain, and reverse engineering categories
- Created writeups and presented solutions to other team members

NORY STEM Westchester — *Hartsdale, NY*

Curriculum Designer and Camp Counselor — *January 2022 - August 2022*

- Designed and implemented 9 weeks of lessons built around the Arduino microcontroller and sensors
- Led a team of 4 camp counselors to facilitate technology lessons including preparation and teaching
- Instructed K-5 students on the assembly and wiring of projects ranging from robots to pulse oximeters

Robotics Captain — *Scarsdale, NY*

Edgemont High School — *September 2019 - March 2022*

- Led the Edgemont Robotics Team as Captain since sophomore year, competing in the FIRST Tech Challenge (FTC)
- Mentored 15 students from grades 7-12 in Fusion 360 CAD, robot design principles and Java programming

Projects

Wordle Together

Multiplayer Game — https://wordletogether.com — *January 2022*

- Built a multiplayer Wordle game that has been played over 200,000 times.
- Created backend using Node.js and µWebSockets.js to handle game logic and communication between clients
- Implemented frontend in the Svelte framework, ensuring responsiveness and accessibility.

Research

Pandey, R., Chen, Y., Patil, M., Conway, P. J., Al-Khinji, A., & Mahadevan, D. (2021). Over-expression of CEACAM6 negatively modulates the tumor microenvironment in pancreatic cancer. Cancer Research, 81(13_Supplement), 3156. — *American Association for Cancer Research (AACR)*

Co-Author — *April 2021*

- Characterized interactions of the CEACAM6 gene with body systems in pancreatic cancer
- Used R language to perform analysis of RNA-seq dataset to observe CEACAM6 modulation of pancreatic cancer.
- Created visualizations for poster presented at the AACR 2021 Annual Meeting.

Honors & Awards

2022 **3rd Place**, Raymond James CTF — *St. Petersburg, FL*

2022 **Semifinalist**, National Merit Scholarship — *United States*

2021 **Bronze Medal**, GENIUS Olympiad — *International*

Skills

Programming Languages Python, Javascript, R, C++, Java, C, SQL, Kotlin

Technical Skills Raspberry Pi, Arduino, Svelte, µWebSockets.js, Android Development, Fusion 360, Git, Unity