## Building on Success: HackFRee 2026 Brings Students and Mentors Together Again!

Each year, the Freehold Regional High School District's Hackathon brings together some of the most creative and driven students across the district and beyond to turn bold ideas into real-world solutions. Hosted by Manalapan High School, the 14-hour event challenges participants to design projects that improve lives, build community, or advance emerging technologies.

This year's HackFRee 2026, held on January 17, 2026, continues that tradition of open innovation with three exciting tracks: Hobby & Lifestyle, Social Good & Community, and Emerging Technologies (AI, ML, VR). Students from all FRHSD schools are invited to compete, learn, and collaborate in a dynamic environment filled with workshops, mentorship, and teamwork.

## HackFRee Alumni: From MNHS to the World

Over the years, HackFRee has become a launchpad for student creativity and impact. One remarkable example is **Pooja Thaker** '25, a Science & Engineering Program graduate and multi-year HackFRee winner whose leadership and innovation have inspired students across the district.

Her project, AmblyOverlay, began as a Hackathon prototype and evolved into an award-winning research paper and presentation. The app provides an input-transparent, assistive overlay for binocular visual therapy, an accessibility tool designed for children with visual conditions such as amblyopia, exophoria, and double vision.

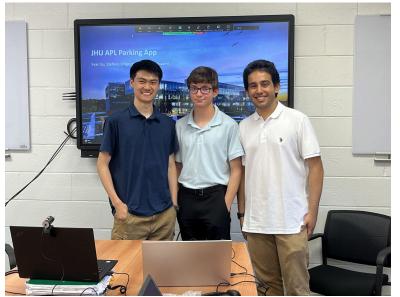
Pooja's journey from HackFRee participant to published researcher demonstrates how a student idea can grow into impactful research. After refining her project, she presented it at the 27th International ACM SIGACCESS Conference on



Computers and Accessibility (ASSETS '25), where she won first place in the ACM Student Research Competition and was selected as a Grand Finalist to compete against top student researchers worldwide. Her paper, *AmblyOverlay: An Input-Transparent, Assistive Overlay for Binocular Visual Therapy and Dichoptic Filtering* (ACM ASSETS '25, Article 175), details how she translated her motivation into a structured, step-by-step development process, outlined measurable outcomes, and proposed future directions toward clinical testing. Reflecting on her experience at ASSETS, she described it as "an absolute blast, one of the most inclusive, passionate, and engaging conferences I've attended."

Pooja was also named to the Major League Hacking (MLH) Top 50, a global recognition honoring student innovators who redefine what's possible with technology. Now a freshman at Virginia Tech, she continues to explore the intersection of computer science, neuroscience, and accessibility. Her story illustrates how

HackFRee projects can evolve from local innovation to internationally recognized research, proof that creativity, curiosity, and perseverance can turn a weekend idea into work that changes lives.



Another standout moment came from **Evan Su**, **Stefano D'Agostino**, and **Shrikar Swami**, who won 1st Place Hack of Distinction at the 7th Annual FRHSD Hackathon for their project Project Empty Space. The idea emerged from their shared observation of how much time and energy are wasted each day searching for parking, a challenge faced in schools, cities, and workplaces alike. Drawing on their interests in data science, physics, and computer science, the team taught themselves machine learning and computer vision to create a working prototype capable of recognizing open parking spaces in a model parking lot. Reflecting on their journey, the team wrote:

"Even in the very first hours of the hackathon, we still had no idea how to train a computer to recognize cars. We legitimately asked ourselves if the whole enterprise was too difficult to warrant the attempt—yet we chose to embrace the challenge and bring our idea to life."

What began as a 14-hour proof of concept evolved into opportunities to present their work to professional engineers and researchers at the Johns Hopkins University Applied Physics Laboratory (JHU APL) and Stevens Institute of Technology, where they received valuable feedback and mentorship to further refine their idea.

That same spirit of curiosity and perseverance, seen not only in these students but across every team that takes part in the event, captures what HackFRee stands for: the belief that learning by doing, by trying, failing, and trying again, can lead to innovation that leaves a lasting mark on the community. Building on the success, participation, and creativity of our students, HackFRee will once again be held on January 17th from 9:00 a.m. to 11:00 p.m. at Manalapan High School, as we continue to provide a space for innovation and collaboration.

HackFRee 2026 is led by a dedicated student leadership team from Manalapan and Colts Neck High Schools and would not be possible without the generous support of Freehold Regional High School District Faculty and our sponsors: the Jersey Shore STEM Ecosystem, FREA, CommVault, and the Manalapan High School Booster Club, whose partnership continues to inspire and empower the



next generation of innovators. To learn more about the event, visit our <u>HackFRee 2026 website</u>, designed and managed by the HackFRee Leadership Team.

## HackFRee'26 - Student Registration/Mentors/Judges/Sponsors

- FRHSD Students: register using this Google Form.
- For Schools Outside FRHSD: schools interested in bringing a group of students are welcome! Please contact *jkomitas@frhsd.com* for more information.

## Mentors, Judges, and Sponsors - Get Involved!

If you'd like to be part of HackFRee 2026, whether by co-sponsoring the event, serving as a judge or mentor, or contributing ideas, we'd love to hear from you. Please complete the <u>Google Form</u> to register your interest and help support this year's hackathon. (All mentors, judges, and volunteers are required to register.)

For any questions or suggestions, please reach out to *Ms. Komitas, supervisor of Math, Science and S&E* at *jkomitas@frhsd.com*. Every bit of support, feedback, and suggestion helps us create meaningful opportunities for students to dream big, build boldly, and make a lasting impact through innovation.