

Varun Unnithan

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Education

B.S. in Aerospace Engineering, B.S. in Computer Science

Expected Graduation: May 2026

University of Maryland, College Park, MD

- Honors College: Gemstone Program
- President's Scholarship Recipient
- Research: Additive Manufacturing of Cellular Materials for Out-of-Plane Energy Absorption with Dr. Norman Wereley
- Courses: Differential Equations, Physics: Mechanics & Electromagnetism, Engineering Design

High School Diploma

July 2018–June 2022

The Academy for Mathematics, Science, and Engineering, Rockaway, NJ

Weighted GPA: 103.2 (100-point scale)

- Awards: Excelsior Award, AP Scholar with Distinction, 2nd in NJ for FBLA Coding & Programming

Work Experience

Software Engineering Internship

August 2021–April 2022

Resilience Inc, Virtual

- Engineered back-end systems for the AIMEE mobile application with Node.js and React Native
- Overhauled documentation and database systems; installed MySQL databases onto AWS
- Implemented JSON web token authentication and user account login systems to improve app security
- Collaborated effectively with upper management and team members

Technical Experience

Terrapin Rocket Club

August 2022–Present

Avionics Team Member, University of Maryland

- Learn basics of microcontrollers and data storage methods within them
- Help design flight computer for telemetry and datalogging for a 10,000 ft solid rocket

Students for the Exploration and Development of Space (SEDS)

August 2022–Present

Satellite Fabrication (SATFAB) Team Member, University of Maryland

- Work to develop 1U cube satellite to launch with USNA's 3U bus and use OpenLST for communications
- Member of the Thermals and Structures sub team; ensure safety of payload while in orbit
- Work on developing thermal control subsystem (TCS) to protect hardware

UMD Undergraduate Quantum Association

August 2022–Present

Member, University of Maryland

- Learn basics of quantum mechanics and computing with qubits
- Develop programs in quantum computation with IBM's QISKit and Python

Personal Programming Projects

December 2020–Present

- Programmed a 3D rendering engine with raymarching methods in Java
- Developed a [website](#) with 3D interactive simulations to teach students about space and physics

Skills

- Experience with JavaScript, Java, Node.js, SQL, React, React Native, HTML, and CSS
- Expertise with 3D CAD software and animation tools such as Solidworks and Blender