Varun Unnithan

Lake Hiawatha, NJ 07034 • (973) 214-2762 • varun.unnithan33@gmail.com • www.varununnithan.me

Education

B.S. in Aerospace Engineering *Expected Graduation: May 2026*
University of Maryland, College Park, MD

- Prospective Computer Science double major
- 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: 103.0 (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, Remote

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

Technical Experience

Terrapin Rocket Team *August 2022–Present*
Avionics Team Member, University of Maryland

- Help design flight computer for telemetry and datalogging for a 10,000 ft altitude solid rocket
- Learn basics of microcontrollers and data storage methods within them
- Write code in C++ to take in data and process data from sensors on Teensy microcontroller

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
- Help direct research and 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