Pratyush Saxena

703-509-9269 • ps2272@cornell.edu • Portfolio • GitHub • LinkedIn • Chantilly, VA

EDUCATION

Cornell University – *Bachelor's Degree in Computer Science, Minor in Artificial Intelligence* **Ithaca, NY | Aug 2025 – May 2028**

- GPA: 3.8/4.0 | Activities: Generative AI Club, Association for Computer Science Undergraduates
- Relevant Coursework: Discrete Math, Object-Oriented Programming and Data Structures

Thomas Jefferson High School for Science and Technology – *High School Diploma* **Alexandria, VA | Aug 2021 – Jun 2025**

- GPA: 4.0/4.0 (Weighted: 4.5/5.0) | ACT: 35/36 | PSAT: 1500/1520 | Activities: Boy Scouts, Debate, Tae Kwon Do
- Relevant Coursework: Artificial Intelligence, Computer Vision, Web App Development, Mobile App Development

WORK EXPERIENCE

National Aeronautics and Space Administration (NASA) – ***Software Engineer Intern*** **Greenbelt, MD | Jun 2024 – Aug 2024**

- Developed Python software for laser-based wireless power transfer between in-orbit satellites as a proof-of-concept mission.
- Led a 5-person team on two projects: one focused on coding an OpenCV-based computer vision algorithm for laser-point tracking, and the other on developing Inertial Measurement Unit (IMU)-based software for in-orbit satellite stabilization.
- Presented technical performance metrics, including ~98% laser-aiming accuracy, to 100+ NASA engineers and scientists.

PART-TIME WORK EXPERIENCE

Alpheva AI – ***Product Analytics & Engineering Intern*** **New York City, NY | Nov 2025 – Jan 2026**

- Built a React Native Reports dashboard with cash-flow visualizations and category-level breakdowns (e.g., dining, travel, subscriptions), improving users' insight into spending behavior and contributing to ~$6,500 in average annual user savings.
- Helped design investor pitch decks used to secure partnerships with institutions including OpenAI, Google, and Amazon.
- Drove go-to-market execution by analyzing six competing fintech products (features, release progress, and social media marketing), producing live product demo videos, and conducting targeted outreach to ~1,000 venture capital investors.

Biostate AI – ***AI Research Intern*** **Houston, TX | Aug 2025 – Oct 2025**

- Worked in a human-in-the-loop ML research workflow by reviewing AI-generated analyses, validating statistical results, manually correcting figures, and editing LLM-generated manuscript drafts to meet scientific and publication standards.
- Applied CNN-based analysis and LLM tools to immunology datasets ($CD8^+$ $PD\text{-}L1^+$ cells in murine models) and co-authored 5+ AI-assisted manuscripts submitted to peer-reviewed journals, including *Genome Biology*.

TJHSST Computer Systems Lab – ***Student Systems Administrator*** **Alexandria, VA | Aug 2022 – Dec 2024**

- Selected as 1 of 8 from 73 applicants to maintain the school's IT systems (60+ workstations, intranet, email servers, etc.).
- Served as Documentation Co-Lead, authoring 50+ pages of technical documentation for IT infrastructure maintainability.

PROJECTS

wE-Study: Collaborative Online Study Platform – ***Full-Stack Web Application*** **Jun 2025 – Sep 2025**

- Designed and developed a full-stack study-session coordination platform using HTML, CSS, JavaScript, and SQL.
- Implemented a relational database via phpMyAdmin to store user accounts and study sessions with secure authentication.

4Sight: AI Insider Trading Monitor – ***Financial Data Analytics Tool*** **Jan 2025 – May 2025**

- Built a Python-based web scraper that collects and parses SEC Form 4 insider trading filings from the EDGAR API.
- Developed an NLP model that analyzes insider activity alongside global news to generate potential explanations for trades.

T-REX: Tunable-Resonance Electricity eXperiment – ***Mechanical & Electrical Engineering Project*** **Dec 2024 – Apr 2025**

- Prototyped a floor tile that generates electricity from mechanical and sonic energy by utilizing piezoelectric materials.
- Built an AI model that predicts environmental conditions and adjusts applied pressure on the tile, increasing energy output.

SkIntel: AI Skin Cancer Detection App – ***CNN-Based Computer Vision Model*** **Feb 2024 – Jun 2024**

- Under MIT PhD mentorship, coded a convolutional neural network in Python to detect skin cancer from lesion images.
- Achieved high accuracy (AUC score of 0.93) using smartphone-quality images and presented to an audience of 150+.

SKILLS & HONORS

Technical: Python, Java, HTML, CSS, JavaScript, SQL, Flask, React, NumPy, OpenCV, phpMyAdmin, Excel, Onshape, ArcGIS
Academic: National Merit Scholar Finalist, National Honor Society, Science Olympiad States, MathCounts Chapter Invitationals
Extracurricular: Eagle Scout, TSA Software Development Nationals, Congressional Debate Metrofinals, Tae Kwon Do Black Belt