

# Neha Nataraj

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## EDUCATION

<b>Georgia Institute of Technology</b> , Atlanta, GA <i>Bachelor of Science in Computer Science, Threads: Intelligence and Cybersecurity</i>	<b>May 2028</b> <b>GPA: 3.9/4.0</b>
<b>Relevant coursework:</b> Linear Algebra, Multivariable Calculus, Object-Oriented Programming, Data Structures <b>PrizePicks and Matt Steele Track Winner (1/450 participants)</b> — AI ATL Hackathon	

<b>Lambert High School</b> , Suwanee, GA High School Diploma	<b>May 2025</b> <b>GPA: 4.71/4.0, Rank 6/783 (Top 1%)</b>
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## TECHNICAL SKILLS

<b>Languages:</b> Python, R, Java, JavaScript, TypeScript, Bash
<b>Frameworks &amp; Tools:</b> AWS (Lambda, EC2, S3), REST APIs, Postman, React, Next.js, Node.js, OpenCV, scikit-learn, pandas, numpy, Git
<b>Technical Focus:</b> Machine learning, statistical modeling, data analysis, computer vision, backend integration, cloud-based systems, research & technical writing

## EXPERIENCE

<b>Scientific Computing / Research Software Intern</b> <i>Georgia Institute of Technology, Center for Relativistic Astrophysics</i>	<b>Sept. 2025 – Present</b> Atlanta, GA
<ul style="list-style-type: none"><li>Conduct computational simulation and large scale data analysis for the Trinity telescope project, optimizing high-throughput with <b>Bash</b> workflows and analyzing results in <b>Python</b>.</li><li>Analyze relationships between physical parameters (energy, wavelength) to improve signal identification and background rejection, with a focus on tau neutrino detection in high energy cosmic ray experiments.</li></ul>	
<b>Machine Learning Intern</b> <i>University of Georgia, Department of Statistics</i>	<b>May 2024 – July 2025</b> Athens, GA
<ul style="list-style-type: none"><li>Developed and evaluated p-value weighting approaches to improve genetic association accuracy across <b>16</b> traits and <b>6M</b> SNPs using <b>R</b> and <b>Python</b>.</li><li>Modeled q-value variance as a function of percent tagged variance (PTV) and implemented GWAS pipelines to identify links between traits and genetic variants.</li></ul>	
<b>Software Engineering Intern</b> <i>CyberSoftware</i>	<b>May 2023 – Aug. 2023</b> Remote
<ul style="list-style-type: none"><li>Worked on backend integration for a startup product, assisting with the implementation and testing of REST APIs using <b>Postman</b> and cloud services on <b>AWS</b>.</li><li>Supported API debugging, request validation, and service configuration to improve reliability and data flow between system components.</li></ul>	

## PUBLICATIONS

Nataraj, N. & Manoharan, A. (2024). *A Comprehensive Review of the Legal Challenges Posed by Deepfake Technology*. Journal of Student Research, 13(3). DOI: 10.47611/jsrhs.v13i3.7273.

## PROJECTS

<b>Founder of Bridge4Good, AI based Nonprofit Platform</b>	<b>May 2022 – Aug. 2025</b>
<ul style="list-style-type: none"><li>Built a <b>random forest</b> model in <b>Python</b> to target donations toward underserved regions, creating partnerships with <b>23</b> homeless shelters and raising <b>\$16K+</b>.</li><li>Led expansion across <b>5</b> chapters in the U.S. and U.K., organizing events attended by <b>500+</b> people and contributing to outreach impacting <b>10,000+</b> individuals.</li></ul>	
<b>NBA Gesture Predictor</b> <a href="https://github.com/Pudging/AIATL">github.com/Pudging/AIATL</a>	<b>Fall 2025</b>
<ul style="list-style-type: none"><li>Built a real time NBA game prediction platform by developing a <b>Node.js</b> and <b>Express</b> backend with <b>WebSockets</b> to stream live play by play data, and a <b>React</b> frontend integrating <b>TensorFlow.js MoveNet</b> for webcam shooting gesture detection, earning <b>1st place</b> in the PrizePicks and Matt Steele track out of <b>450</b> participants.</li></ul>	
<b>Computer Vision Aided Navigation for the Blind</b>	<b>Oct. 2023 – July 2024</b>
<ul style="list-style-type: none"><li>Developed a low cost assistive navigation prototype using <b>computer vision</b> on a <b>Raspberry Pi</b>, providing real-time narration of surroundings as a <b>\$10</b> alternative to existing <b>\$4,000</b> solutions.</li><li>Piloted the system in collaboration with the Karna Vidya Foundation to evaluate real world usability.</li></ul>	