

Namitchandra Chowdary Nallapaneni

Williamsburg, VA | (804)300-5818 | ncnallapaneni@wm.edu | <https://www.linkedin.com/in/namit-nallapaneni-09b4ab26a/>

EDUCATION

College of William & Mary, Williamsburg VA - June 2026 - Current GPA: 3.7

Major: Bachelor of Science in Computational Applied Mathematics and Statistics: Mathematical Biology Minor: Biology

RESEARCH EXPERIENCE

Student Researcher

William and Mary iGEM Team (International Genetically Engineered Machine Competition)

Jan 2024 – Nov 2024

- Investigated **phage satellites** for genetic circuit control in complex environments, tackling the challenge of synthetic biological systems functioning outside laboratory conditions.
- Engineered experimental workflows involving **plasmid construct design, PCR, and Gibson assembly**, ensuring robust experimental validation of computational predictions.
- Designed, developed, and implemented SaPhARI** (Satellite Phage Algorithmic Recognition and Interpretation), a novel **bioinformatics tool** for detecting and classifying bacteriophage satellites in genomic and metagenomic data.
- Built SaPhARI as a modular, user-friendly software by integrating **CLI bioinformatics tools, Python, shell scripting, Nextflow, and Docker**.
- Published **open-access documentation** and resources to enhance accessibility and encourage community engagement via GitHub and project website.

Achievements

- Global Top 10 finalist and Gold Medal recipient, ranked #1 undergraduate team in the United States.**
- Nominated for **Best Foundational Advance Project** and **Best Software Tool**.

Research Assistant

Joshua Puzey's Lab at William and Mary

Feb 2023 – Jan 2024

- Supported **graduate-level research** on the genetics and environmental adaptations of poke milkweed.
- Conducted **image processing and analysis** of stomata and trichomes to study morphological variations.
- Analyzed soil nutrient and microbiome differences among milkweed species using **PCA and t-SNE for data visualization**.

EMPLOYMENT EXPERIENCE

Computational Support Intern

Office of Institutional Research at William and Mary Information Technology

Jun 2023 – Jan 2024

- Coordinated cross-departmental efforts to verify survey data and ensure database accuracy.
- Validated institutional data with external sources such as IPEDS and CDS.
- Developed tutorials utilizing **Excel-based data visualization** and maintained the Institutional Research website using Cascade CMS.

Code "Sensei"/Instructor

Code Ninjas Glen Allen

Aug 2020 – Aug 2022

- Taught **foundational coding concepts** to students (ages 6–14) using Scratch and **JavaScript**.
- Designed and led engaging week-long summer camps focused on creative computer science applications.
- Spearheaded marketing campaigns that increased student enrollment from 5 to 50+.

LEADERSHIP AND SERVICE

- Achieved **Eagle Scout** rank through the Boy Scouts of America, demonstrating strong leadership and organizational skills.
- Volunteered **120+ hours** at the Hindu Center of Virginia **within past 6 months**, contributing to youth mentorship and community-building initiatives.

SKILLS

- Programming:** Python, JavaScript, Shell scripting, HTML, Nextflow, Docker, GitHub
- Bioinformatics Tools:** Prodigal, BLAST, Aragorn, tRNAscan-SE, Barnap, Clustal
- Molecular Biology Techniques:** Plasmid construct design, PCR, Gibson assembly
- Soft Skills:** Analytical problem-solving, effective communication, teamwork