

Hari Desikan

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EDUCATION

CARNEGIE MELLON UNIVERSITY

B.S. Computer Science

Pittsburgh, PA

Expected May 2025

Coursework: Imperative Programming, Discrete Math, Linear Algebra, Theoretical Computer Science

PROJECTS

Developing Contrast-to-Noise Ratio Thresholds for the Detection of MCF-7 Breast Cancer Tissue in Acoustic Shadows

Research in Physics Program (RPhys)

Oct 2020 - Jun 2022

Developed a novel quantitative computational method to detect cancerous tissue based on recent research (2018) in a self-directed research project

- Utilized: MATLAB, Field II Ultrasound Simulation Program, Ultrasound Transducers
- Presented at State of NC Undergraduate Research, Bronze Medal @ NC Science Fair

EXPERIENCE

North Carolina School of Science and Mathematics

Cary, NC

Physics Teaching Assistant: Waves and Optics

Sep 2021 - Jun 2022

- Assist instructors with evaluating homework and quizzes
- Host office hours with students to answer general questions and review for exams
- Mentored 20+ students throughout weekly labs

ACTIVITIES

Carnegie Mellon Informatics and Mathematics Competition

Pittsburgh, PA

Logistics Committee Head

Oct 2022 - Present

- Organize 3 social events for committee members
- Solve ~100 math problems for use on 2 contests
- Volunteer as a proctor at collegiate math competitions

Cyclic National Competitive Math Group

Cary, NC

Competition Co-Director

Aug 2019 - Present

- Design 100+ math problems for use on 5+ contests
- Direct implementation of CNCM Online, a math contest with 100+ participants
- Communicate with sponsors and coordinate logistics to facilitate a contest at UNC

NCSSM Physics Club

Durham, NC

Board Member

August 2021 - June 2022

- Design handouts to teach topics in undergraduate physics such as fluid dynamics
- Lead lectures on topics in theoretical physics

Summer STEM Agents

Remote

Educator

August 2020 - August 2021

- Lead lectures on topics in theoretical physics
- Host group problem-solving sessions to help prepare high-school students for the F=MA exam

SKILLS

Technical Skills: (Proficient) MATLAB, Python, Java, C, LaTeX, Vim (Familiar) Bash, SML, Microsoft Suite, Next JS, HTML, CSS

AWARDS

Competitions: Putnam 2023 Top 500 Participant, NC International Science Challenge Finalist