

Vinay Murthy

120 Falcon Drive, Larksville, PA 18704
vmurthy16@gmail.com (570) 301-2949

EDUCATION

Pennsylvania State University, University Park, PA

Bachelor of Science in Physics with a Minor in Mathematics, 2018

Overall GPA 3.57/4.0

Major GPA 3.55/4.0

RELEVANT COURSE WORK

Solid State Physics

Optics

Engineering Electromagnetics

Quantum Mechanics

Programming with C++

Public Speaking

Macroeconomics

Experimental Physics

Electrical Circuits & Devices

Theoretical Mechanics

Thermal Physics

Matrices & Linear Algebra

Fluids & Thermodynamics

Technical Writing

Relativity (Special and General)

Digital Theory & Design

Modern Physics

Probability & Stochastic Processes

Ordinary & Partial Diff. Equations

Classical Mechanics

Personal Finance

TECHNICAL & OTHER SKILLS

- Effective verbal and written communication skills; productive as a team member and can work individually
- Computer Skills: Microsoft Word, Excel, PowerPoint, MATLAB, C++, Mathematica, SOLIDWORKS

UNDERGRADUATE RESEARCH EXPERIENCE

- Texas A&M University REU, Summer 2017: *Stochastic Phase Stability of $(M_1M_2)_2AX$ Phases*
Used computational techniques (DFT and CALPHAD) to thermodynamically assess subsystems making up a quaternary MAX phase alloy. Research findings were presented at a poster session at the Dept. of Materials Science & Engineering, Texas A&M University, College Station, TX. Advisors: Dr. Arroyave and Dr. Duong
- Researcher for Dr. Douglas Werner in the Computational Electromagnetics and Antennas Research Laboratory at Penn State University (June 2016 – September 2016)
I worked with Penn State Electrical Engineering professor, Dr. Douglas Werner, and one of his graduate students to create a closed form analytical solution describing the radiation properties of thin-wire nanoloops

EMPLOYMENT

- Teaching Assistant for Classical Mechanics course (PHYS 211) at Pennsylvania State University (Summer 2018) – conducted recitations, graded worksheets, and held office hours
- Learning Assistant for Electricity & Magnetism course (PHYS 212) at Pennsylvania State University (Fall 2017) – provided help to students when clicker questions were asked during lecture
- Tutor at the Veteran Center of Excellence (VCE) for Circuits and Devices at Wilkes University (Fall 2016)
- Learning Assistant for Classical Mechanics course (PHYS 211) at Penn State (Fall 2015) - provided help to students when clicker questions were asked during lecture

HONORS & AWARDS

- Inducted into the Sigma Pi Sigma Physics Honors Society, Spring 2018
- Recipient of Bert Elsbach Scholarship in Physics, 2017-18 Academic Year at Pennsylvania State University
- President's Freshman Medal, Spring 2015, Pennsylvania State University
- Invited to pursue Honors Engineering Science degree, Spring 2015 at Pennsylvania State University

OTHER ACTIVITIES

- Volunteer – tutoring veteran engineering students at Wilkes University, Fall 2016
- Member, Student Chapter of SPS (Society of Physics Students) (Spring 2017)
- Member, Lion Rocket Labs: Propulsion Subsystem (Fall 2014)