

# Gassan Yacteen

Physics Major - Professional Track (Bachelor of Science)

1 Hummel Lane  
Southwick, Ma 01077  
(413) 896-7789  
gyacteen@umass.edu

## EXPERIENCE

### Physics and Mathematics Tutor, — *Self Employed*

March 2019 - PRESENT

- **Physics:** Modern, Math Methods, Waves, Thermodynamics, Electromagnetism, Mechanics and Computational Physics.
- **Mathematics:** Ordinary Differential Equations, Intro Linear Algebra, Calculus 1, 2, Multivariable, Geometry, Advanced Math, and Algebra, Mathematical Techniques of Python using SymPy

### Professor Scott Hertel Research Group, UMass Amherst — *Undergraduate Assistant*

September 2020 - PRESENT

- Designed thermal conductance test of sapphire detector in SolidWorks
- Wrote code for fitting curve function from solved differential equation of power dissipation of fridge and data analysis
- Derived clamp force relative to z-axis displacement

### Physics 181 Teaching Assistant, UMass Amherst

September 2020 - November 2020

- Teaching assistant for Professor Dinsmore - Mechanics
- Worked with 18 students throughout the semester and assisted them through worksheets

### Personal Projects, - *Part Time*

- [Math & Physics Fun with Gus](#) YouTube channel where I convey examples of solving physics and math problems in an intuitive way
- Extensive Linear Algebra Jupyter Notebook. Part of it includes 3D rotations of orthogonal matrices about x, y, z axes and an example of a matrix being diagonalized by a unitary similarity transformation being a Hermitian matrix
- Useful Modern Physics Jupyter Notebook, computes general equations, allows the speed of light to remain as 'c', or be computed as well as inverse Lorentz transformation depending on boolean input

## EDUCATION

### University of Massachusetts Amherst, - (B.S.)

August 2019 - expected graduation year 2022

#### Completed Physics related courses:

- Mechanics
- Electromagnetism
- Thermodynamics & Waves
- Modern Physics
- Computational Physics
- Techniques of Theoretical Physics
- Writing in Physics
- Calculus 1, 2, and Multivariable
- Linear Algebra
- Ordinary Differential Equations

#### Grade Point Average:

- Cumulative: 3.979
- Physics Major (BS) - Professional Track: 4.0

## SKILLS

- Jupyter Notebooks
- Python
- SymPy
- Matplotlib
- LaTeX
- SolidWorks
- Wolfram Language
- Microsoft
- Excel
- Power Point