

# Huân Q. Bui

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## Education

**B.A.** (*anticipated*) *Colby College*, 2017—2021, GPA: 4.12/4.00  
Physics & Mathematical Sciences with a Concentration in Statistics.

## Courses

**Physics** Classical Field Theory (*independent study*), General Relativity, Classical Mechanics, Thermodynamics & Statistical Mechanics, Modern Physics.  
**Mathematics** Matrix Analysis, Linear Algebra, Probability Theory, ODE, PDE, Statistical Modeling, Vector Calculus, Introduction to Statistics, Honors Calculus, Introduction to Python.

## Work Experience

**Undergraduate Research**, *Joint Quantum Institute—UMD & NIST* Summer 2019

- Principal investigator: Steven Rolston.
- Unofficial offer accepted. Topic: Optical nanofiber (ONF) experiments.

**Research Assistant**, *Colby College, Dept. of Physics & Astronomy* Nov 2017—Present

- Principal investigator: Professor Charles Conover.
- Study ultracold Rydberg  $^{39}\text{K}$  in a MOT using frequency-stabilized external-cavity diode lasers

**Teaching Assistant**, *Colby College, Dept. of Mathematics & Statistics* Feb 2019—Present

- Grade problem sets for MA253: Linear Algebra. Instructor: Otto K. Bretscher.
- Hold TA hours.

**Teaching Assistant**, *Colby College, Dept. of Physics & Astronomy* Sep 2017—Present

- Graded problem sets for Mechanics, E&M and Optics ('18), and Modern Physics I & II ('19).
- Prepared laboratory equipment for Foundations in Electromagnetism & Optics.

**Math & Physics Tutor**, *Colby College, Dean of Studies* Nov 2018—Present

- Meet 5 students from Modern Physics, Mechanics, and First-year Calculus on a regular basis.
- Help improve their academic performance through reviewing course material and solving problems.

**Tech Support**, *Colby College ITS* Aug 2017—Sep 2018

- Troubleshoot classroom equipment, hard/software, and networking problems.
- Provided help to students, staff, and faculty both over the phone and in person.

**Tutor**, *7AStar Tutoring* Summer 2017

- Assisted Vietnamese high school students with the SAT Subject and AP tests.

## Honors & Awards

**Bixler Scholar**, *Colby College*: 2017—2018  
**Dean's List**, *Colby College*: F'17, S'18, F'18

## Skills

**Laboratory** Optics, atomic spectroscopy (collecting and analyzing data), constructing ECDL's and electronic laser frequency-locking circuits, operating diode lasers & magneto-optical traps, programming arbitrary waveform generator.  
**Computing** IGOR Pro (programming, analysis & modeling), R, Python, Mathematica,  $\text{\LaTeX}$ , Adobe Illustrator, Ubuntu, Windows, MacOS, C++ (beginner), HTML & CSS (novice).  
**Tutoring** Online & One-on-one  
**Languages** Vietnamese (*native*), English (*fluent/proficient*)

## Conferences

**DAMOP19** Millimeter-wave precision spectroscopy of d-d transitions in potassium Rydberg states  
**CUSRR2018** Precision measurement of potassium energy levels at highly excited states

## Interests/Activities

Colby Ultimate Frisbee (Dazzlin' Asses)