

# Huan Q. Bui

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## Education

**B.A.** (*anticipated*) Colby College, 2017—2021, GPA: 4.12/4.00  
*Majors:* Physics & Mathematics. *Minor:* Statistics

## Relevant Coursework

<b>Physics</b>	Classical Field Theory ( <i>independent study</i> ), General Relativity, Classical Mechanics, Thermodynamics & Statistical Mechanics, Special Relativity & Quantum Physics.
<b>Mathematics</b>	Matrix Analysis, Linear Algebra, Probability Theory, Ordinary & Partial Differential Equations, Vector Calculus, Honors Calculus.
<b>Statistics</b>	Applied Longitudinal Data Analysis, Statistical Modeling, Introduction to Statistics.

## Work Experience

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

- Principal investigator: Steven Rolston.
- Topic: Experiments with Optical Nanofiber (ONF).

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

- Principal investigator: Charles Conover.
- Topic: Ultracold Rydberg  $^{39}\text{K}$  in a MOT under frequency-stabilized external-cavity diode lasers.

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

- Current course: Ordinary Differential Equations. Past course: Linear Algebra.
- Grade problem sets and conduct weekly study sessions.

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

- Current courses: Modern Physics. Past course: Intro to Mechanics, E&M and Optics.
- Grade weekly problem sets. Prepared laboratory equipment for E&M and Optics.

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

- Meet students from Modern Physics, Mechanics, and First-year Calculus on a regular basis.
- Provide academic assistance through reviewing course material and solving problems.

## Honors & Awards

<b>Bixler Scholar</b>	<i>Colby College</i> , S'18—
<b>Dean's List</b>	<i>Colby College</i> , F'17, S'18, F'18
<b>Meritorious Winner</b>	<i>Mathematical Contest in Modeling</i> , 2019.

## Skills

<b>Laboratory</b>	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 generators.
<b>Computing</b>	IGOR Pro (programming, analysis & modeling), R, Python, Mathematica, L <sup>A</sup> T <sub>E</sub> X, Adobe Illustrator, C++ (beginner), HTML & CSS (novice).
<b>Languages</b>	Vietnamese ( <i>native</i> ), English ( <i>fluent/proficient</i> )

## Conferences/Presentations

<b>DAMOP19</b>	Millimeter-wave precision spectroscopy of d-d transitions in potassium Rydberg states
<b>CLAS 2019</b>	Matrices in Quantum Computing
<b>CUSRR2018</b>	Precision measurement of potassium energy levels at highly excited states