# Huân Q. Bùi

Colby College, 8347 Mayflower Hill, Waterville, ME, 04901 hqbui21@colby.edu | huanqbui.com | **in** | 301-704-6958

#### 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, Special Relativity & Quantum Physics.

Mathematics Matrix Analysis, Linear Algebra, Probability Theory, Ordinary & Partial Differential

Equations, Vector Calculus, Honors Calculus.

Statistics Applied Longitudinal Data Analysis, Statistical Modeling, Introduction to Statistics.

#### Work Experience

Undergraduate Researcher, 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: Studying Rydberg <sup>39</sup>K in a MOT using frequency-stabilized external-cavity diode lasers.

• Current interest: Electromagnetically-Induced Transparency experiments

**Teaching Assistant**, Colby College, Dept. of Mathematics & Statistics

Feb 2019—Present

• Instructor: Otto K. Bretscher. Course: Linear Algebra.

• Grade problem sets and conduct weekly study sessions.

**Teaching Assistant**, Colby College, Dept. of Physics & Astronomy

Sep 2017—Present

• Instructor: Robert Bluhm. Course: Modern Physics II. Grade weekly problem sets.

• Past courses: Mechanics, E&M and Optics, and Modern Physics I.

• Prepared laboratory equipment for E&M and 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.

Provide academic assistance through reviewing course material and solving problems.

Tech Support, Colby College ITS

Aug 2017—Sep 2018

• Troubleshot 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, 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