Huan Q. Bui

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Education

B.A. (*anticipated*) Colby College, 2017—2021, GPA: 4.14/4.00
Majors: Physics & Mathematics. *Minor*: Statistics

Relevant Coursework

Physics Classical Field Theory (*independent study*), Quantum Mechanics, General Relativity, Classical Mechanics, Electricity & Magnetism, Thermodynamics & Statistical Mechanics, Special Relativity & Quantum Physics.

Mathematics Matrix Analysis, Linear Algebra, Probability Theory, Ordinary & Partial Differential Equations, Abstract Algebra, Complex Analysis, Finite Fields & Error Correcting Codes, Vector Calculus, Honors Calculus.

Statistics 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}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

Bixler Scholar *Colby College*, S'18—
Dean's List *Colby College*, F'17, S'18, F'18
Meritorious Winner *COMAP* Mathematical Contest in Modeling, 2019.

Skills

Laboratory Optics, atomic spectroscopy, constructing ECDL's and electronic laser frequency-locking circuits, operating diode lasers & magneto-optical traps, programming arbitrary waveform generators.

Computing IGOR Pro (programming, analysis & modeling), R, Python, Mathematica, LaTeX, Adobe Illustrator, C++ (beginner), HTML & CSS (novice).

Languages Vietnamese (*native*), English (*fluent/proficient*)

Conferences/Presentations

DAMOP19 Millimeter-wave precision spectroscopy of d-d transitions in potassium Rydberg states
CLAS 2019 Matrices in Quantum Computing: A 2-qubit entanglement circuit
CUSRR2018 Precision measurement of potassium energy levels at highly excited states