# Huan Quang Bui

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# **EDUCATION**

**B.A.** (anticipated), 4.12 Colby College, 2017—2021

Physics & Mathematical Sciences with a Concentration in Statistics

High School Diploma, 3.96 CATS Academy Boston, 2015—2017, Valedictorian

High School for the Gifted, VNU, 2013—2015, Chemistry

#### COURSES

2017—2018 Classical Mechanics; Modern Physics; Linear Algebra; Honors Calculus; Computational

Thinking (Python)

2018—2019 Fall: General Relativity; Probability Theory; Ordinary Differential Equations; Vector

Calculus; Introduction to Statistics

Spring (anticipated): Matrix Analysis; Partial Differential Equations; Thermodynamics

& Statistical Mechanics; Applied Longitudinal Analysis; Statistical Modeling

# WORK EXPERIENCE

Research Assistant Project Investigator: Professor Charles Conover

Colby College, Dept. of Physics & Astronomy Nov 2017—Present Topic: High-precision measurements of millimeter-wave transitions between Rydberg states in potassium (to 1 in  $10^7$ ). Measurements are used to determine quantum defects and absolute energy of the Rydberg states. Summer 2018: Studied how to use Ramsey separated oscillatory fields method to make precision measurements with our current apparatus. Work

presented at CUSRR 2018.

Teaching Assistant Colby College, Dept. of Physics & Astronomy Nov 2017—Present Graded weekly problem sets for: PH141: Foundations in Mechanics (F'17); PH145: Foundations in Electromagnetism & Optics (S'18); PH241: Modern Physics I (F'18). Prepared laboratory equipment for PH145 (S'18).

Computer Consultant Colby College, ITS Aug 2017—Oct 2018 Installed software; Supported students, staff, and faculty with troubleshooting classroom equipment, hard/software, and networking problems. Promoted from *Support Center Technician*.

**Tutor**, 7AStar Tutoring Summer 2017 Prepared Vietnamese high school students for standardized tests (e.g. AP exams and SAT subject tests).

#### VOLUNTEERING EXPERIENCE

Red Flamboyant Campaign

Demonstrated fun and interactive physics and chemistry experiments to middle schoolers across remote areas in Ho Chi Minh City.

# Summer 2014 HONORS & AWARDS

Bixler Scholar Colby College, June 2018: Top-ranked students as determined by the cumulative

academic record at the end of the preceding year.

Dean's ListColby College, Fall 2017, Spring 2018ValedictorianCATS Academy Boston, May 2017

High Distinction Australian National Chemistry Quiz, Nov 2014, Nov 2015 Bronze Medal VNU University of Science Chemistry Olympiad, May 2014

#### **SKILLS**

Laboratory Optics; Atomic spectroscopy (collecting and analyzing data); Constructing electronic cir-

cuits; Operating diode lasers & magneto-optical traps; Programming arbitrary waveform

generators for remote MOT current control & other purposes.

Computing IGOR Pro (programming, data analysis & modeling), R, Python, Mathematica, LATEX,

C++ (novice), Java (novice), Adobe Illustrator, Ubuntu, Windows, MacOS

**Tutoring** Online & One-on-one tutoring

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

### INTERESTS

Ultimate Frisbee (member of Colby Ultimate team), Bike tech.