

# Khoa Ho

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## EDUCATION

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### Grinnell College (GC)

Grinnell, IA

*B.A., Double Major in Physics and Mathematics, Minor in Neuroscience*

*Expected May 2018*

- **GPA:** 3.72 / 4.00
- **Honors:** Dean's List (3 out of 5 semesters), Major Honor Track
- **Selected Coursework:** Modern Physics, Upper-division Classical Mechanics (with weekly Python projects) and Electromagnetic Theory, Computational Physics, Differential Equations, Differential Geometry, Abstract Algebra, Real Analysis, Numerical Analysis (with weekly MATLAB projects)

## RESEARCH EXPERIENCE

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### GC Solid State Physics Lab

Grinnell, IA

*Research Assistant*

*May 2016 – August 2016*

- Worked in a team to synthesize new rare-earth intermetallic single-crystals using the flux method
- Characterized these novel materials physically with X-ray diffraction, magnetically and electrically with PPMS
- Wrote a Python program to analyze and visualize magnetic susceptibility and electrical resistivity data
- Presented poster at the Undergrad. Research Symposium of the Midstates Consortium for Math and Science

### RF & Microwave Lab - National Metrology Center

Singapore

*Research Intern*

*October 2012 – November 2012*

- Studied high-precision measurements and the construction and maintenance of standards
- Programmed in LabVIEW to automate data collection and processing from in-lab atmospheric sensors

### Nanomaterials Research Lab - National University of Singapore

Singapore

*Research Intern*

*November 2011 – February 2012*

- Investigated how laser pruning and the addition of quantum dots affects CdSe nano-rods and nano-belts
- Examined optical and morphological changes using PL and Raman spectroscopy, as well as optical, fluorescence, and scanning electron microscopy

## WORK & LEADERSHIP EXPERIENCE

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### GC Campus Curriculum Committee

Grinnell, IA

*Student Representative of the Science Division*

*August 2016 – Present*

- Provided recommendations for and oversight of the educational program and vision of the college
- Led an initiative on expanding interdisciplinary coursework and research among students and faculties

### GC Physics Department

Grinnell, IA

*Teaching/Lab Assistant*

*February 2015 – Present*

- Mentored General Physics students, graded their work, and discussed teaching strategies with professors
- Assisted more than 100 hours of lab by setting up equipment, explaining procedures, and troubleshooting

### GC Student Government Association (SGA)

Grinnell, IA

*Residence Hall Cluster Senator*

*September 2015 – December 2016*

- Served and represented 4 residence halls, housing over 200 students, at the Campus Council
- Wrote, debated, and enacted SGA's legislation and helped allocate a 6-figure annual budget for events

## SKILLS

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**Language:** English (fluent), Vietnamese (native), French (conversational)

**Programming:** Python, MATLAB, C, Mathematica, LabVIEW

## ACTIVITIES

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- Led a 1-week canoeing trip for 12 students in Buffalo River, Arkansas
- Facilitated a 1-week hiking and mountaineering expedition for 20 students in Indian Himalayas
- Taught underprivileged middle schoolers English and built a local library in Nanchang, China
- Active member the Effective Altruist Group in Grinnell
- Intramural table tennis, Aikido, and long-distance running