Khoa Ho

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Education

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

Work & Leadership Experience

College Kickstart Grinnell, IA

Full Stack Development Intern *May – August 2017*

- Implemented new features on admission statistics reporting, using LAMP stack, JavaScript, and JQuery, to improve high school counselors' workflow
- Extended the database and website UI to support custom GPA types and admission statistics for each client

GC Campus Curriculum Committee Grinnell, IA

Student Representative of the Science Division *August 2016 – Present*

- Provided recommendations for and oversight of the curricular 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

Research Experiences

GC Solid State Physics Lab Grinnell, IA

Research Assistant *May – August 2016*

- Worked in a team to synthesize new rare-earth intermetallic single-crystals using the flux method
- Wrote a Python program to analyze and visualize magnetic susceptibility and electrical resistivity data

RF & Microwave Lab - National Metrology Center Singapore

Research Intern *October – 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 affect CdSSe nano-rods and nano-belts
- Examined optical and morphological changes using PL and Raman spectroscopy

Projects

Deep Learning (using TensorFlow, Numpy) April – September 2017

- Classifying household object images in the CIFAR-10 dataset using Convolutional Neural Network
- Applying Sequence-to-Sequence model to translate English to French
- Generating Simpson TV script with Long Short Term Memory (LSTM) networks
- Generating hand-written digits and celebrity faces using Deep Convolutional Generative Adversarial Network

Activities

- 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 helped build a local library in Nanchang, China