# 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, 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