

# KHOA HO

(641) 260-6823 | 1115 8<sup>th</sup> Ave, Grinnell, IA 50112 | hokhoa@grinnell.edu | GitHub/LinkedIn: khoa-ho

## EDUCATION

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### Grinnell College

*Expected May 2018*

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

Grinnell, IA

- **GPA:** 3.7 / 4.0 (Dean's List, Major Honor Track)
- **Selected coursework:** Quantum mechanics, Computational Physics, Object-Oriented Design, Analysis of Algorithms

## PROJECTS

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### Deep Learning

*April – September 2017*

- Classifying household object images in the CIFAR-10 dataset using Convolutional Neural Networks (CNN)
- 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 (DCGAN)

## PROGRAMMING PROFICIENCY

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- **General:** Java, C, Python, MATLAB, MySQL, JavaScript
- **Machine Learning:** NumPy, Pandas, Scikit-Learn, TensorFlow, Keras, Google Cloud, AWS

## WORK EXPERIENCE

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### Full-Stack Development Intern

*May – August 2017*

*College Kickstart (Pleasanton, CA)*

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

### Science Division Student Representative

*August 2016 – Present*

*Campus Curriculum Committee (Grinnell, IA)*

- 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

### Teaching Assistant

*February 2015 – May 2017*

*Physics Department (Grinnell, IA)*

- 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

## RESEARCH EXPERIENCE

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### Research Assistant

*May – August 2016*

*Solid State Physics Lab (Grinnell, IA)*

- Synthesized new rare-earth intermetallic single-crystals using the flux method (Presented at the Midstates Consortium)
- Developed a Python program to analyze and visualize the magnetic susceptibility and electrical resistivity data

### Research Intern

*October – December 2012*

*RF & Microwave Lab - National Metrology Center (Singapore)*

- Studied high-precision measurements and the construction and maintenance of standards
- Automated data collection and processing from atmospheric sensors through LabVIEW programming

### Research Intern

*November 2011 – February 2012*

*Nanomaterials Research Lab - National University of Singapore (Singapore)*

- 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 and scanning electron microscopy

## 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 helped build a local library in Nanchang, China