

# Khoa Nguyen

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## EDUCATION

### THE COLLEGE OF WOOSTER

B.A., COMPUTER SCIENCE & MATHEMATICS

Aug 2014 - Dec 2017 | Wooster, OH

Cumulative GPA: 3.97 / 4.0

## SKILLS

### LANGUAGES

Working knowledge:

C/C++ • Golang

Basic knowledge:

R • Java • Python

Haskell • bash • SQL

### TECHNOLOGIES

• git • JIRA • AWS

• Google Cloud • Docker

• Kali Linux • curl • nmap

• Metasploit • Burp Suite

## COURSEWORK

### RELATED COURSES

Machine Intelligence + Project

Algorithm Analysis + Project

Operating Systems

Computer Networking

Software Engineering + Project

Programming Languages

Data Structures & Algorithms + Lab

Probability & Statistics I, II + Project

Advanced Linear Algebra

Real Analysis I

Functions of Complex Variables

(Research/Teaching Asst & Grader)

Algorithm Analysis

User Interface Design


Data Structures & Algorithms

Linear Algebra

## LINKS

 [nguyen-khoa.github.io](https://github.com/nguyen-khoa)

 [github.com/nguyen-khoa](https://github.com/nguyen-khoa)

 [linkedin.com/in/khoanguyen18](https://www.linkedin.com/in/khoanguyen18)

## HONOR SOCIETIES

Phi Beta Kappa

Pi Mu Epsilon (Mathematics)

## EXPERIENCE

### INTUIT, INC. | SECURITY ENGINEER INTERN - RED TEAM

May 2017 - Aug 2017 | San Diego, CA

- Built and maintained an automated offensive security testing platform in Golang based on the Kill Chain model to monitor more than 1,000 AWS accounts.
- Wrote 12 security checks in JIRA for the platform.
- Helped scale the platform to ingest a whole connected kill chain of multiple security checks in addition to individual checks.

### WESTERN RESERVE GROUP | AMRE RESEARCH CONSULTANT

May 2016 - July 2016 | Wooster, OH

- Automated the client's data importing process of auto insurance data into Excel with Access SQL and VBA, and included an intuitive user interface.
- Trained 2 teammates inexperienced in SQL and VBA to intermediate skill level.
- Completed the project 2 weeks before the deadline.

### GOODYEAR TIRE & RUBBER | AMRE RESEARCH CONSULTANT

May 2015 - July 2015 | Wooster, OH

- Developed Automated X-ray Image Analysis Software (AXIAS), used daily by Goodyear in inspecting 12-foot-tall industrial tires, with OpenCV and Visual C++.
- Utilized hypothesis testing and visualization to help identify a tire's anomalies.
- Reduced the time for inspecting each tire by 85% to only 5-6 min.

## PROJECTS

### PREDICTING STOCK PRICES

MATH-329 Probability & Statistics II | CSCI-310 Machine Intelligence

- Created an ARIMA time series model combined with a Restricted Boltzmann Machine (RBM) in R to predict stocks based on their historical prices.
- Predictions fell within  $\pm 10\%$  of the actual prices of the 18 stocks tested.
- Working on more testing and model configurations for better accuracy.

### AUTOMATED THEOREM PROVERS (ATP)

Independent Study | Senior Thesis - Expected Dec 2017

- Doing research on the theory and implementation of current ATPs.
- Customizing an existing ATP written in Haskell for the course Real Analysis I.
- Improving the program to make certain generated proofs more human-like.

### $\LaTeX$ ON ANDROID: TEXMOB

CSCI-230 Software Engineering - Mobile Computing

- Created a fully functional prototype of an Android app to write and compile  $\LaTeX$ .
- Designed all of the user interface and client-side logic.

## EXTRACURRICULARS

GHC Scholar & Poster Presenter

Co-Founder & Vice President

Participant

Resident Director

Trustee

Grace Hopper Conference 2016

Computer Science Club - Coll. of Wooster

DEF CON 25, HackMIT 2016, OHI/O 2015

Office of Residence Life - Coll. of Wooster

Jenny Investment Club - Coll. of Wooster