

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 • PowerShell

Basic knowledge:

R • Java • Python

Haskell • bash • SQL

TECHNOLOGIES

git • JIRA • AWS

Google Cloud • Azure

Kali Linux • nmap

Metasploit • Burp Suite

Docker • VSTS

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

LINKS

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

 github.com/nguyen-khoa

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

HONOR SOCIETIES

Phi Beta Kappa

Pi Mu Epsilon (Mathematics)

WORK EXPERIENCE

MICROSOFT | SOFTWARE ENGINEER - WDG INFORMATION SECURITY

March 2018 - Present | Redmond, WA

- Perform assessments on software infrastructure and products of Windows & Devices Group (WDG) to discover and report security vulnerabilities.
- Build and maintain internal tools to facilitate security assessments.

INTUIT | 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.
- 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.

OTHER 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.

BLOCK CIPHERS

CSCI-200 Algorithm Analysis

- Studied the basics of cryptography and specifically the theory behind block ciphers that are essential in data encryption.
- Wrote a C++ proof-of-concept substitution-permutation network, a structure used in most modern block ciphers such as AES.

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