Khoa Nguyen

knguyen18@wooster.edu | 234-380-9228 | Wooster, Ohio

EDUCATION

THE COLLEGE OF WOOSTER
B.A., Computer Science & Mathematics
Aug 2014 - Dec 2017 | Wooster, OH
Cumulative GPA: 3.97 / 4.0

SKILLS

LANGUAGES
Over 3000 lines:
C/C++ • Golang
Acquainted:
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
Differential Equations

(Research/Teaching Asst & Grader)
Algorithm Analysis
User Interface Design
Linear Algebra
Data Structures & Algorithms

LINKS

nguyen-khoa.github.io
github.com/nguyen-khoa
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-feet-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.
- Building contraposition technique into the program to enable automating more proofs.

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	Grace Hopper Conference 2016
Co-Founder & Vice President	Computer Science Club - Coll. of Wooster
Participant	DEF CON 25, HackMIT 2016, OHI/O 2015
Resident Director	Office of Residence Life - Coll. of Wooster
Trustee	Jenny Investment Club - Coll. of Wooster