Khoa Nguyen

nguyen-khoa.github.io | knguyen18@wooster.edu | San Diego, California

EDUCATION

THE COLLEGE OF WOOSTER

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

SKILLS

PROGRAMMING

Over 3000 lines:
C/C++
Over 1000 lines:
Go • R • Java • Python
Familiar:
Ruby • Haskell • Bash
• MATLAB •SQL
• git • Kali Linux • JIRA
• AWS • Google Cloud
• nmap • Metasploit

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

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

- Building and maintaining infrastructure in Golang to automate security testing based on the Kill Chain model, using JIRA, GCP, and Kubernetes.
- Learning offensive security techniques to understand vulnerabilities specific to Intuit and create corresponding security 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

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.

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.

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

Participant - Honorable Mention	Mathematical Contest in Modeling 2015, 2016
Participant	DEF CON 25, HackMIT 2016, OHI/O 2015
Co-Founder & Vice President	Computer Science Club - Coll. of Wooster
Trustee	Jenny Investment Club - Coll. of Wooster
Resident Director	Office of Residence Life - Coll. of Wooster