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

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

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

HONORS & AWARDS

ΦBK Phi Beta Kappa
$\Pi M E$ Pi Mu Epsilon

EXPERIENCE

INTUIT, INC. | Security Engineer Intern - Threat Intelligence
May 2017 - Aug 2017 | San Diego, CA
- Building and maintaining infrastructure in Golang to automate security testing based on the Kill Chain model using different container and cloud technologies.
- Scaling the current infrastructure to handle intertwined, graph-like kill chains in addition to individual linear ones.

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.

BLOCK CIPHERS
CSCI-200 Algorithm Analysis
- Investigated the theories behind block ciphers, essential in data encryption.
- Wrote a C++ proof-of-concept substitution-permutation network, a structure used in most modern block ciphers such as AES.

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 Celebration of Women in Computing 2016
Participant - Honorable Mention	Mathematical Contest in Modeling 2015, 2016
Participant	HackMIT 2016, OHI/O 2015 hackathons
Co-Founder & Vice President	Wooster Computer Science Club
Resident Director	Office of Residence Life
Trustee	Jenny Investment Club