Khoa Nguyen

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EDUCATION

THE COLLEGE OF WOOSTER
B.A., Computer Science (CS) & Mathematics
Expected Dec 2017 | Wooster, OH
Cumulative GPA: 3.97 / 4.0
CS Major GPA: 3.96 / 4.0
Mathematics Major GPA: 3.96 / 4.0

SKILLS

PROGRAMMING
Over 3000 lines:
C++
Over 1000 lines:
C • Java • Python
Familiar:
R • SQL • Scheme • Bash
• MATLAB

OTHERS
git • LaTeX• OpenCV • Android
• Linux • Jekyll

COURSEWORK

RELATED COURSES
Machine Intelligence
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

EXPERIENCE

INTUIT, INC. | Software Engineer Intern
Expected to start June 2017 - Aug 2017 | Mountain View, CA

WESTERN RESERVE GROUP | AMRE Research Consultant
May 2016 - July 2016 | Wooster, OH

- Automated the data mining process of auto insurance data from Microsoft Access to Excel with SQL and VBA, under a simple, intuitive user interface.
- Led a team of 3 to the project's completion 2 weeks before the deadline.
- Allowed users to obtain and analyze loss data dynamically and automatically.
- Replaced the long manual process of extracting data for varying time periods.

GOODYEAR TIRE & RUBBER | AMRE Research Consultant
May 2015 - July 2015 | Wooster, OH

- Wrote 1/3 of the source code of Automated X-ray Image Analysis Software (AXIAS), used daily by Goodyear in tire inspection.
- Designed algorithms for image filtering and analysis with C++ and OpenCV.
- Implemented statistical tests to increase accuracy and consistency.
- Reduced the time for inspecting tire images from 30 min down to 5-6 min.

PROJECTS

BLOCK CIPHERS
CSCI-20000 Algorithm Analysis
Investigated the theories behind block ciphers, which are cryptographic algorithms essential in data encryption. Wrote a C++ proof-of-concept substitution-permutation network, a structure used in most modern block ciphers such as AES.

PREDICT STOCK PRICES WITH TIME SERIES IN R
MATH-32900 Probability & Statistics II
Worked with a partner to create an ARIMA time series model in R to predict the prices of 7 most volatile stocks in the portfolio of Wooster's investment club. Correctly forecast the stop-loss selling of a stock based on its previous price over a year.

LaTeX ON ANDROID: TEXMOB
CSCI-23000 Software Engineering - Mobile Computing
Worked with a partner to create a fully functional prototype of TexMob, an Android app that allows users to write and compile LaTeX code on their Android devices. Designed all of the user interface and some of the back-end data storage.

ACTIVITIES

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