

XIAOSHI WANG

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EDUCATION

Bachelor of Science, Lafayette College

Easton, PA

Double Major in Mathematics and Computer Science

GPA: 3.9

Expected May 2019

Relevant Courses: Data Structures & Algorithms, Computer Organization, Analysis of Algorithms, Software Engineering, Operating Systems, Principles of Programming Lang, Theory of Computation, Data Mining, Database Systems Management, Artificial Intelligence, Cyber Security, Vector Spaces, Combinatorics, Probability, Mathematical Statistics

HONORS & AWARDS

Pi Mu Epsilon ♦ Dean's List, all semesters to date ♦ Ranked Second in Mathematics Barge Team Competition (School-wide), Fall 2016 and Spring 2017 ♦ Placed Third on Site Wilkes University in the Regional ACM Programming Contest, 2018

SKILLS

Programming Languages: Java, C/C++, Python, SQL, LaTeX, R, MATLAB, J, Prolog, Lisp

Platform/Technical Skills: Linux, Web Development, Mathematica, Microsoft Office

RESEARCH

Thesis Research, "The Stretch Factor of Delaunay Triangulations"

Summer 2018–Spring 2019

The stretch factor of a Delaunay Triangulation is defined as the maximum ratio, among all pairs of points, of the shortest path distance over the Euclidean distance. Research on the tight bound of the stretch factor of Delaunay triangulations.

- Review literature about previous works and use Python to simulate models with varied inputs
- Apply the Piyavskii algorithm to estimating the upper bounds for critical arcs

Excel Research, "Cover Time for Binary Sequences"

Summer 2017-Winter 2018

Studied on the cover time in Binary Sequences, which is the length of some sequences when all patterns of a fixed length are visited.

- Applied a combinatorial method to find the distribution
- Used generating functions to simplify the equation
- Analyzed the expected cover time and found approximation of the expected value

SELECTED PROJECTS

Behind the ACOP Reports

Fall 2018

Created databases in PostgreSQL for the Roundtable for Sustainable Palm Oil (RSPO) Annual Communications of Progress (ACOP) Reports. Provided compact spreadsheets and visualizations for clients Forest Trends in Caspio.

Sending Help

Spring 2018

Designed and produced an emergency response and awareness system in C++ that organized first responder actions and facilitated the public's response. Accomplished features including registrations, alerts, incident reports, messages, etc.

Mini Shell

Spring 2018

Implemented a mini shell for Linux in C. The shell supported environment variables, pipes, built-in commands, jobs and signals.

WORK EXPERIENCE

CS.getHelp(), Lafayette College

Fall 2017 – Spring 2019

Drop-in Tutor - Work in CS.getHelp(), drop-in sessions organized by ACM twice a week. Provide support for tutees on their homework, labs and projects in Computer Science introductory courses.

ATTIC, Lafayette College

Fall 2016 - Fall 2017

Individual Tutor - Tutored students in Mathematics and Physics including Probability, Statistics and Physics introductory courses. Fostered communication and teaching skills by planning the lessons and delivering them efficiently to the students.

ACTIVITIES

Girls Who Code Club, Lafayette College

Fall 2018 - Spring 2019

An after-school coding club for third to fifth grade girls at a local elementary school. Aim to close the gender gap in technology and teach girls to code, putting them on track to rewarding careers in computer programming.

LaFarm, Lafayette College

Summer 2018-Spring 2019

Integrate practice in sustainable food and agriculture for the campus community. Grow produce for the dining halls, recycle nutrients from composted food back to the soil, and serve as a laboratory for student-faculty research