

Cailani J. Lemieux Mack

[redacted address]

[redacted email]

Education

B.S.	Computer Science, Mathematics St. Lawrence University (Canton NY) Current GPA: C.S. 4.0, Math: 3.975 Dean's List Fall 2019 - Spring 2022	2023 (anticipated)
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Publications

Cailani Lemieux Mack, Kevin Leach, Kevin Angstadt. Sensor Data Transplantation for Redundant Hardware Switchover in Autonomous Vehicles. In *Proceedings of the 53rd Annual International Conference on Dependable Systems and Networks*, Porto, Portugal, 2023. IEEE, (under peer review).

Projects and Presentations

Onscreen Representations of Graphs and Testing if They Are Plane

Hudson River Undergraduate Mathematics Conference (April 2021)

I presented an independent programming project that I completed which consists of software to define and manipulate graph drawings on screen and run an algorithm over the defined graph drawing to determine if it is plane.

Botnet Command and Control Through Client-Server Architecture

St. Lawrence University Festival of Science (May 2022)

Me and two other students presented a programming project that we completed. This project implemented multi-threaded botnet server and client software that allowed a single server to control many bot computers at once.

Sensor Data Transplantation for Resilient Drone Operation

St. Lawrence University Internship Fellowship Poster Presentations (October 2022)

I presented my work over a university sponsored summer fellowship where I worked to support autonomous vehicle controller restart in the middle of a pre-programmed mission.

Teaching Experience

Peterson Quantitative Resource Center Mentor

(Fall 2020 -)

St. Lawrence University

Worked as a drop-in tutor for quantitative classes. Students come to the center asking for help, and the best qualified mentor for that class helps them. I have tutored computer science, math, statistics, physics and more.

Computer Science Teaching Assistant

(Fall 2021 -)

St. Lawrence University

Assisted professors both in and out of the classroom. I sat in on classes and answered student questions as they came up. I also graded Data Structures coding assignments and ran office hours for students to come to and get help with projects.

Supervising Professors: Dr. Kevin Angstadt, Dr. Lisa Torrey

Courses Taught: Intro to Computer Programming, Data Structures

Work Experience

Lift Operator

(2018 - 2021)

Eldora Mountain Resort

Worked operating lifts at a ski resort. I worked in a 3-5 person team that operated a given lift. We worked together closely to ensure both guest enjoyment and guest safety.

Related Coursework

Algorithm Analysis

Applied Statistics

A Bridge to Higher Mathematics

Computer Organization

Database Systems

Differential Equations

Techniques of Computer Science

Multivariable Calculus

Graph Theory

University Physics

Software Engineering

Linear Algebra

Theory of Computation

Game Development

Real Analysis

Programming Languages

Statistical & Machine Learning

Cyber Security

Ring Theory

Data Structures

Honors and Awards

Pi Mu Epsilon Mathematics Award (2020)

Societies and Leadership

Omicron Delta Kappa Leadership Honor Society (Spring 2021 -)

Pi Mu Epsilon Mathematics Honor Society (Fall 2021 -)

Club Ultimate Frisbee Captain (Spring 2022 -)