

Xiao (Simon) Yu

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1280 Main Street West, Hamilton ON, L8S 4L7, Canada

EDUCATION

Master of Engineering (M.Eng.), Computing and Software **Sept 2020 - Present**
McMaster University, Hamilton ON
Thesis: *Generation of Automatic Test Cases with Mutation Analysis & Hybrid Genetic Algorithm*
Supervisor: Dr. Erlich Backman

Bachelor of Engineering, Software Engineering (Co-op) **Sept 2016 – April 2020**
McMaster University, Hamilton ON

HONOURS

McMaster University Honour Award **2020**
Motorola Software Engineering Scholarship **2019**

RESEARCH & TEACHING EXPERIENCE

- Scientific Computing and Optimization
- Theory and Methodologies of Computation
- Security, Privacy, and Data Analytics

RESEARCH EXPERIENCE

Graduate Student Research Assistant **2020 - Present**
McMaster University, Hamilton ON

- Examine the Generation of Automatic Test Cases with Mutation Analysis and Hybrid Genetic Algorithm
- Conducted research under the supervision of Dr. Erlich Bachman

Research Assistant **Oct 2019 – March 2020**
McMaster University, Hamilton ON

- Researched and developed algorithms to obtain data from a wireless sensor network
- Solved deficiencies in the data center by analyzing root causes within the algorithm and applying known issues to failure prediction model
- Conducted research under the supervision of Prof. Andy Bernard

TEACHING EXPERIENCE

Teaching Assistant **June 2018 – April 2019**
McMaster University, Hamilton ON
Course: Data Structures and Algorithms (2C03)

- Organized tutorial discussions on topics relating to data structures and algorithms
- Explained difficult concepts in stacks, queues, hash tables, and binary trees
- Supported level two undergraduate students for the course assignments & projects
- Mentored and counselled students experiencing difficulties in the course
- Gained familiarity with algorithmic design strategies; correctness & performance analysis

PROFESSIONAL EXPERIENCE

Special Projects Coordinator

2019

School of Engineering Practice & Technology, McMaster University, Hamilton ON

- Streamlined the course and midterm scheduling process by creating a software in C and C# to detect conflicts with course and room timetables
- Demonstrated strong communication skills while training Program Administrators on the software's functionalities
- Enhanced organizational skills by systemizing various tasks involved in ensuring projects be completed within the timeline

ACADEMIC INVOLVEMENT

Vice President

2020 - Present

Software Engineering Club, McMaster University, Hamilton ON

- Planned, coordinated, and recruited committees to manage a series of club meetings & programs
- Acted as a liaison between the club President and committee members

Control Department Lead

2016 - 2017

McMaster EcoCAR 3 Team, McMaster University, Hamilton ON

- Improved the design of the vehicle by troubleshooting controls in MATLAB and Simulink

PUBLICATIONS – REPORTS

Yu, Xiao. (2018). *“Creating a Structural Model That Permits Automatic Manipulation”* Report prepared for Dr. Erlich Bachman. Hamilton: McMaster University.

Yu, Xiao. (2018). *“Obtaining Data Through Wireless Sensor Networks”* Report prepared for Prof. Andy Bernard. Hamilton: McMaster University.

TECHNICAL SKILLS

Programming:

MATLAB, Simulink, Bash, Ruby, SQL, HTML, C, C++. CSS, C#, XML, Java, Python, API

Database:

Oracle, MySQL, MongoDB, IBM, DB2, Hana, SAP

Software:

Autodesk Inventor, Maple, MapleSim, Linux/Unix, MS Office Suite, Adobe Creative Suite

Languages:

Bilingual, Mandarin and English

REFERENCES

Dr. Erlich Backman

Thesis Supervisor
Faculty of Engineering
McMaster University
905-525-9140x555
disneywa@mcmaster.ca

Prof. Andy Bernard

Thesis Committee Member
Faculty of Engineering
McMaster University
905-525-9140x554
bernardan@mcmaster.ca

Prof. Leslie Knope

Teaching Supervisor
Faculty of Engineering
McMaster University
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