

Julia Lanier

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EDUCATION

UNIVERSITY OF MICHIGAN

MS IN COMPUTER SCIENCE
AND ENGINEERING

Present | Ann Arbor, MI

Research Advisor: Dr. Kevin Fu

Lab: SPQR

MS GPA: 3.90 / 4.00

UNIVERSITY OF ALABAMA

BS IN ELECTRICAL ENGINEERING

May 2019 | Tuscaloosa, AL

College of Engineering, Honors College

Concentration: Computer Engineering

Minor: Computer Science, Mathematics

GPA: 3.87 / 4.00

Magna Cum Laude

LINKS

Github:// [JuliaKay23](#)

LinkedIn:// [julialanier](#)

Blog:// [julialanierblog.wordpress.com](#)

Twitter:// [@juliakaylanier](#)

COURSEWORK

GRADUATE

Adv Topics in Computer Architecture

Adv Operating Systems

Artificial Intelligence Foundations

VLSI Design I (*in progress*)

UNDERGRADUATE

Computer Architecture

Data Structures and Algorithms

Digital Logic

Digital Systems Design

Electric Networks

Electronics I & II

Embedded Systems

Microcomputers

Signals and Systems

SKILLS

LANGUAGES

C • C++ • Python

VHDL • Verilog • Assembly

CERTIFICATIONS

Forklift Operation • June 17, 2017

CPR • December 1, 2016

OSHA • August 19, 2016

Basic IRS • January 26, 2016

RESEARCH

SPQR LAB | GRADUATE STUDENT RESEARCH ASSISTANT

August 2019 - Current | Ann Arbor, MI

Currently working with Dr. Kevin Fu in collaboration with Dr. Alanson Sample on an Ultrasonic Microphone Array project.

SKEPTRE | ADV OPERATING SYSTEMS SEMESTER PROJECT

January 2020 - April 2020 | Ann Arbor, MI

Profiled the success of the hardware attack, Spectre, when various amounts and types of "processor noise" was added to the victim CPU.

REMOTE SENSING CENTER | UNDERGRADUATE RESEARCH ASSISTANT

November 2018 - March 2019 | Tuscaloosa, AL

Worked with Dr. Drew Taylor and Dr. Stephen Yan to design and implement a direct digital synthesizer module for radar applications.

AUTONOMOUS KAYAK | UNDERGRADUATE RESEARCH ASSISTANT

August 2017 - January 2018 | Tuscaloosa, AL

Worked on a team advised by Dr. Aijun Song to develop ocean monitoring software for an autonomous kayak.

EXPERIENCE

REVERE CONTROL SYSTEMS | Co-OP ENGINEERING STUDENT

August 2016 - May 2018 (3 Terms) | Birmingham, AL

- Designed, built, and tested instrumentation and control systems including communications, SCADA, and motor protection and control for municipal, OEM, and industrial applications
- Designed circuits based off network diagrams and process and instrumentation diagrams
- Troubleshoot and programmed PLCs and HMIs using C and ladder logic

AWARDS

2017-2018 1 of 20 Eta Kappa Nu Outstanding Senior Award

2016-2017 1 of 100 Fred R. Maxwell Jr. Award

LEADERSHIP & MEMBERSHIP

2020 Embedded Security Workshop • *Program Organizer*

2020-2021 Engineering Research Symposium • *Committee Member*

2020-2021 Ensemble of CSE Ladies+ • *Social Chair*

2016-2019 Eta Kappa Nu Honor Society • *President* • *Web Officer*

2015-2019 Society of Women Engineers • *Newsletter Committee Head*

PUBLICATIONS

- [1] J. Lanier. Oakland 2020: Thoughts on a virtual conference by a michigan eecs phd student. *IEEE Cipher: Newsletter of the IEEE Computer Society Technical Committee on Security and Privacy*, Issue 155 May 29, 2020, May 2020.
- [2] J. Lanier, J. Ma, K. Fu, J. Baker, and T. Deshmukh. Towards woke research reading groups: Understanding and confronting inequality and implicit bias. In Review.
- [3] J. Lanier, R. A. Taylor, and J. Yan. An initial implementation of a direct digital synthesizer module for radar applications. In *2019 SoutheastCon*, pages 1-2, April 2019.