

# Julia Lanier

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## EDUCATION

### UNIVERSITY OF MICHIGAN

#### MS IN COMPUTER SCIENCE

#### AND ENGINEERING

Present | Ann Arbor, MI

PhD 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

Artificial Intelligence Foundations

Adv Operating Systems

### 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

2016-2019 Eta Kappa Nu Honor Society of Electrical and Computer Engineers  
*President • Web Officer*

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

2014-2018 Alpha Delta Pi  
*Finance Vice President • Finance Assistant • Homecoming Committee*

## 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.