# Julia Lanier

julialanier.com | jlanier@umich.edu | (678) 763-1826

## EDUCATION

### UNIVERSITY OF MICHIGAN
MSE in Computer Science and Engineering
Present | Ann Arbor, MI
**Research Advisor:** Dr. Kevin Fu
**Lab:** SPQR
**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 Operating Systems
Adv Topics in Computer Architecture
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

Verilog • VHDL • Assembly
Physical Design • Logic Synthesis
C • C++ • Python

### 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 designing and implementing an ultrasonic microphone array to ensure privacy preserving patient monitoring for healthcare applications.

### 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
Designed and implemented a direct digital synthesizer module for radar applications.

### AUTONOMOUS KAYAK | Undergraduate Research Assistant
August 2017 – January 2018 | Tuscaloosa, AL
Researcher in software development to create 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
- Designed circuits based off network diagrams and process and instrumentation diagrams
- Troubleshot 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 |
| 2014-2019 | | Dean's Engineering Excellence Scholarship |

## 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* |
| 2014-2018 | Alpha Delta Pi • *Finance Vice President* • *Finance Assistant* |

## PUBLICATIONS

[1] J. Lanier. Oakland 2020: Thoughts on a virtual conference by a michigan eecs graduate 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.