# Julia Lanier

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# **EDUCATION**

#### **UNIVERSITY OF MICHIGAN**

PhD in Computer Science

AND ENGINEERING
Present | Ann Arbor, MI
Advisor: Dr. Kevin Fu

Lab: SPQR GPA: 3.95 / 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

Magna Cum Laude GPA: 3.87 / 4.00

## LINKS

Github:// JuliaKay23 LinkedIn:// julialanier Twitter:// @juliakaylanier

## COURSEWORK

#### **GRADUATE**

Adv Topics in Computer Architecture Artificial Intelligence Foundations

#### **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++ • VHDL Verilog • Assembly

#### **CERTIFICATIONS**

Forklift Operation • June 17, 2017 CPR • December 1, 2016 OSHA • August 19, 2016 Basic IRS • January 26, 2016

### RESEARCH

#### **SPOR LAB** | GRADUATE STUDENT RESEARCHER ASSISTANT

August 2019 - Current | Ann Arbor, MI

Currently working with Dr. Kevin Fu in embedded systems security and privacy.

#### **REMOTE SENSING CENTER** | Undergraduate Researcher

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 PROJECT** | Undergraduate Researcher

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
- Troubleshot and programmed PLCs and HMIs using C and ladder logic
- Provided on-site startup and service
- Ensured compliance with costumer and government regulations such as UL and CSA certifications, NEC and IEC standards, and EU directives
- Prepared panels for witness factory acceptance tests
- Created a network cabinet and routed ethernet and fiber cables to local offices

# **AWARDS**

2017-2018 1 of 20 Eta Kappa Nu Outstanding Senior Award 2016-2017 1 of 100 Fred R. Maxwell Jr. Award

# LEADERSHIP & MEMBERSHIP

| 2018-2019 | Tau Beta Pi Engineering Honor Society                                      |
|-----------|--|
| 2016-2019 | Eta Kappa Nu Honor Society of Electrical and Computer Engineers            |
|           | President • Web Officer  |
| 2016-2017 | EcoCar 3 Electrical Subteam  |
| 2015-2019 | Society of Women Engineers   |
|           | Newsletter Committee Head  |
| 2015-2018 | Alpha Kappa Psi Professional Business Fraternity                           |
|           | Executive Board Secretary • Judiciary Committee Justice • Recruitment Team |
| 2014-2019 | Institute of Electrical and Electronics Engineers                          |
| 2014-2018 | Alnha Delta Pi   |

Finance Vice President • Finance Assistant • Homecoming Committee

# **PUBLICATIONS**

J. Lanier, D. Taylor, and S. Yan. An Initial Implementation of a Direct Digital Synthesizer Module for Radar Applications. In *SoutheastCon 2019*. In press.