

# ERIC JOHNSON

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## EDUCATION

University of Illinois at Urbana-Champaign  
Bachelor of Science in Computer Engineering

Spring 2017

### Related Coursework

Algorithms  
Artificial Intelligence  
Computer Graphics  
Probability in Engineering

Data Structures  
Computer Architecture  
Robotics  
FPGA Boards

Real-Time Systems  
Operating Systems  
Signal Processing  
Linear Algebra

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## COMPUTER SKILLS

### Programming Experience:

- **Proficient:** C, C++, Java, Python, JavaScript, C#, HTML, CSS, x86 Assembly, SystemVerilog
- **Familiar:** SQL, PHP, Ruby, AVR Assembly

**Software Experience:** Git, MatLab, Android Studio, Altera Quartus

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## EXPERIENCE

### University of Illinois at Urbana-Champaign

Research Assistant

Urbana, IL

Summer 2016

- Created software in C# for testing satellite battery packs automatically
- Debugged satellite circuit boards and electronic components
- Developed and ran tests for verifying quality of satellite optics systems

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## PROJECTS

### Competition Robot

- Led the team behind the programming of the robot
- Designed a wireless communication protocol and GUI for controlling robots
- Programmed time sensitive software for reading rotary encoder values

Spring 2017

### Autonomous Robot

- Made a control system for following walls using sensor feedback
- Enabled the robot to draw an outline of a room as it navigates
- Implemented image processing to scan environment for images

Fall 2016

### Neural Net GUI

- Made a website for demonstrating simple neural networks using javascript
- Created a 3D representation of neural network using WebGL and Three.js
- User can completely configure network including layer count and size

Fall 2017

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## LEADERSHIP

### iRobotics Controls Technical Lead

- Coordinated and taught 12 hours of technical workshops for students
- Taught students how to program electronics for controlling robots
- Wrote base code for other teams to build off of

Sum. 2016 - Spr. 2017

### iRobotics Social Director

- Planned 10 social events to engage member's interest
- Organized team building exercises for iRobotics teams
- Co-hosted social events with 100's of people with multiple organizations

Sum. 2016 - Spr. 2017

### iRobotics MRDC Programming Captain

- Built a robot to complete various tasks in competition
- Led the programming subteam of one of the MRDC teams
- Won 2nd place in the 28th annual Jerry Sanders Design Competition

Sum. 2015 - Spr. 2017