**ERIC JOHNSON**

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**EDUCATION**

University of Illinois at Urbana-Champaign Spring 2017

Bachelor of Science in Computer Engineering

**Related Coursework**

Algorithms Data Structures Real-Time Systems

Artificial Intelligence Computer Architecture Operating Systems

Computer Graphics Robotics Signal Processing Probability in Engineering FPGA Boards Linear Algebra

**COMPUTER SKILLS**

**Languages:**

**Proficient:** C, C++, Java, Python, JavaScript, C#, HTML, CSS, x86 Assembly, SystemVerilog

**Familiar:** SQL, PHP, Ruby, AVR Assembly

**Software:** Git, SVN, MATLAB, Linux, Android Studio, Microsoft Office, Altera Quartus

**WORK EXPERIENCE**

**University of Illinois at Urbana-Champaign** Summer 2016

LAICE (Lower Atmosphere/Ionosphere Coupling Experiment) Research Assistant

* 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

**PROJECTS**

**iRobotics Competition Robot** (http://irobotics.illinois.edu) 2015 - 2017

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

**Neural Net GUI** Fall 2017

* Created 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

**Autonomous Robot**  Fall 2016

* Developed 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

**LEADERSHIP**

**iRobotics Controls Technical Lead** 2016 - 2017

* Coordinated and taught 12 hrs of technical workshops for engineering students
* Taught engineering students how to program electronics for controlling robots
* Wrote base code for other teams to build from

**iRobotics Midwestern Robotics Design Competition Programming Captain** 2015 - 2017

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

**iRobotics Social Director** 2016 - 2017

* Organized team building exercises for iRobotics teams
* Planned and carried out 10 social events to engage members’ interests
* Co-hosted social events with students from multiple organizations