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#, HTML5, CSS, x86 Assembly, SystemVerilog
  Familiar: SQL, PHP, .NET, Ruby, AVR Assembly
Software: Git, SVN, MATLAB, Linux, Android Studio, Eclipse, Microsoft Office, Unity, Altera Quartus

WORK EXPERIENCE

University of Illinois at Urbana-Champaign   Summer 2016
LAICE (Lower Atmosphere/Ionosphere Coupling Experiment) Research Assistant
- Created software with C# and .NET for testing satellite battery packs automatically
- Tested satellite circuit boards using embedded software written in C
- Developed and ran tests for verifying quality of satellite optics systems

PROJECTS

Neural Net GUI   Fall 2017
  I made a website for demonstrating simple neural networks using HTML, CSS, JavaScript, jQuery, Three.js, and WebGL. Users can completely configure the network, including how many layers there are and the neuron count in each layer.

iRobotics Competition Robot   2015 - 2017
  Along with a team of two other people, I developed the software for the MRDC competition robot. This included writing a C program for an Arduino, a C# program using .NET, and creating a serial communication protocol for XBee radios.

Autonomous Robot   Fall 2016
  Along with two other students, I developed a multi-threaded C++ program running on a Raspberry Pi to control an iRobot Create® 2 Robot to autonomously follow along a wall using sensors and scan the environment for specific images, using OpenCV.

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