ERIC JOHNSON

johnson.eric321@gmail.com | (312) 342-0740 | Boston, MA

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, Subversion, MatLab, Android Studio, 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