Harshad Srinivasan
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Education:

Doctor of Science, Industrial and Systems Engineering — Aug 2011-
North Carolina State University, Raleigh — Ongoing

Master of Science, Mechanical Engineering — May 2011
North Carolina State University, Raleigh. — GPA: 3.78

Bachelor of Technology, Instrumentation & Control Engineering — May 2009
National Institute of Technology, Tiruchirappalli (NIT - Tiruchirappalli), India. — GPA: 3.21

Research and work experience:

1. Working on using 3d scanning and processing technologies in order to develop advanced fixtureless multi-axis machining techniques at Industrial and Systems Engineering, NCSU (April 2012 – Ongoing)
2. Developed a proof of concept 3d printing system capable of manufacturing functional fiber-composite parts at Industrial and Systems Engineering, NCSU. (June 2011 – Feb 2012)
3. Currently maintaining and building the equipment at the Automated Manufacturing Extension Lab at ISE, NCSU (Nov 2011 - Present)
4. Designed and built a control and monitoring system for Atomic Layer Deposition reactors at Chemical and Biomolecular Engineering, NCSU. (Jan 2011 – Oct 2011)
5. Designed, built and verified a controlled cooling system that used dry ice as a 'heat-sink' for my Masters research project at Mechanical Engineering, NCSU. (Aug – Dec 2010)
6. Designed and fabricated a grid-connected inverter capable of matching phase, frequency and voltage instantaneously with the grid and sinking a 2 kw of power into it. Built for my undergraduate final design project. (Jan – May 2009)
7. Designed, built and tested an embedded control system for Exoskeletons based on the interpretation of Myoelectric muscle signals using neural networks. at the Indian Institute of Technology, Madras under the 'Summer fellowship program' at the Department of Engineering design. (May - July 2008)

Course projects

1. Helped develop an integrated asthma monitoring device for my Innovation class, Fall 2012, NCSU
2. Built an automated pick-and-place sorting robot for my Automation Class (Programmed using Ladder-Logic on a Allan-Bradley PLC), Spring 2012, NCSU
3. Built a Railgun (driven by a 300 joule capacitor bank) for my Electromechanical Systems class, Spring 2010, NCSU.
4. Helped and design a 'canopy rod' rest rig for John Deere for my Real-Time Control of Automated Manufacturing class, Fall 2011, NCSU
5. Built a robot capable of mapping (sonar) and traversing (optimal path) an obstacle course for my Mechatronics class , Spring 2010, NCSU.

Other activities:

- Was President of Robotics and Machine Intelligence (RMI – http://delta.nitt.edu/portal/rmi/home/), the on-campus students' Robotics group affiliated to IEEE at NIT – Tiruchirappalli. (May 2008 – May 2009)

Other Skills:

- Can program in C, C++, Python and LabVIEW
- Familiar with Linux/Unix systems
- Experience using Solidworks, Inkscape and MATLAB
- Familiar with Ladder-logic, and PLC programming
- Familiar with Atmel and Renesas microcontrollers
- Experience using machine tools, 3d printers and laser cutter/engravers