

Russell C Jackson

Resume

WORK EXPERIENCE

JULY 2009–PRESENT

Case Western Reserve University, Cleveland, OH
Ph.D Graduate Student Research Assistant

Conducted cutting edge research in the field of medical robotics. This includes needle path modeling, planning and execution. Force evaluation of different needle paths. Detecting thin structures using stereo imaging. This needs more embellishment. Would it be appropriate to break it up into several sections?

FEBRUARY 2011 – PRESENT

Moen Inc., Cleveland, OH
Consultant Engineer

Designed feedback based temperature control laws. Designed and constructed automatic faucet prototypes Iterated the design using on-site feedback and evaluation Completed the designs using an arduino uno

MAY 2008–MAY 2009

Missouri University of Science and Technology Electromagnetic Compatibility Lab, Rolla, Missouri
Research Programmer

Designed and created a mathematical engine that can predict the response of an ideal transmission line and element system Created a program that can cascade touchstone s-parameter files Conducted lab measurements comparing the signal integrity of PCB boards Presented my work at an EMC consortium on November 11 th 2008

MAY 2007–AUGUST 2007




Caterpillar Inc. Cat Electronics Operator Environment and Interface, Peoria, Illinois
Corporate Intern

Designed blast window mounts for operator environment systems Completed numerous design updates of the operator environment Optimized operator visibility while ensuring component compliance

MAY 2006–AUGUST 2006

Caterpillar Inc. Cat Electronics Electro-hydraulic Actuators, Peoria, Illinois
Corporate Intern

Validated the performance of components pertaining to the 2007 Engine program Operated complex laboratory equipment to conduct testing Reduced and documented data while reporting findings to a team of engineers

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EDUCATION

2009-PRESENT **Case Western Reserve University**

PH.D ELECTRICAL ENGINEERING 4.0/4.0
Cleveland, Ohio

2005-2009 **Rose-Hulman Institute of Technology**

B.S. ELECTRICAL ENGINEERING & B.S. MATHEMATICS 3.95/4.0
Terre Haute, Indiana

PUBLISHED PAPERS

2013 **Needle Path Planning for Autonomous Robotic Surgical Suturing. (IEEEEXPlore)**

Russell Jackson, M. Cenk Cavusoglu

2012 **Modeling of Needle-Tissue Interaction Forces During Surgical Suturing. (IEEEEXPlore)**

Russell Jackson, M. Cenk Cavusoglu

2012 **Estimation of Soft Tissue Mechanical Parameters from Robotic Manipulation Data. (IEEEEXPlore)**

Russell Jackson, M. Cenk Cavusoglu

AWARDS

2014 **Ruth Barber Moon Graduate Student Award**

Case Western

2008 **First Place-Digital Design Contest**

Terre Haute, IN

SOFTWARE PROFICIENCY

HIGH C/C++, git, make, Visual Studio, shell, linux, cuda, \LaTeX , Matlab, Simulink, svn

MEDIUM MS-DOS, ROS

LOW LabVIEW, html, Adobe Creative Suite