

# TYLER WORTMAN

## EDUCATION

Doctor of Philosophy, *MECHANICAL ENGINEERING*  
Massachusetts Institute of Technology, June 2015  
Cumulative GPA: 4.80/5.0

Master of Science, *MECHANICAL ENGINEERING*  
University of Nebraska-Lincoln, December 2011  
Thesis: *Design, Analysis, and Testing of In Vivo Surgical Robots*  
Cumulative GPA: 3.98/4.0

Bachelor of Science, *MECHANICAL ENGINEERING*  
University of Nebraska-Lincoln, May 2009  
\*Graduated with Distinction  
Cumulative GPA: 3.948/4.0 (EIT/FE)

## HONORS AND AWARDS

- UNL Folsom Distinguished Master's Thesis Award, 2013
- MIT Pappalardo Fellowship, 2012
- National Science Foundation Graduate Research Fellowship Award, 2011-2014
- UNMC Research Innovation Award, 2011 and 2012
- NASA Space Grant Fellowship Award, 2010-2012
- UNL Outstanding Graduate Research Assistant, 2010
- University of Nebraska Superior Scholar, 2009
- Brook Berringer Citizenship Team, 2008 and 2009
- 2<sup>nd</sup> team ESPN-The-Magazine Academic All-American, 2008
- 1<sup>st</sup> Team Academic All-Big 12, 2007 and 2008
- Big 12 Commissioner's Academic Honor Roll, 2004-2009

## EXPERIENCE

- *National Science Foundation Graduate Research Fellow*  
Massachusetts Institute of Technology, Cambridge, MA  
Department of Mechanical Engineering  
August 2012 to Present
- *Product Design Consultant*  
PillPack, Somerville, MA  
March 2013 to Present
- *Product Design Consultant*  
ELL Operations, Cambridge, MA  
March 2013 to Present
- *Tech-Transfer Intern*  
NUtech Ventures, Lincoln, NE  
Summer 2012
- *Graduate Research Assistant*  
University of Nebraska-Lincoln, Lincoln, NE  
Department of Mechanical Engineering  
January 2009 to August 2012
- *Mechanical Design Engineering Intern*  
Honeybee Robotics & Spacecraft Mechanisms, Pasadena, CA  
Summer 2011
- *Mechanical Design Engineering Intern*  
NASA Jet Propulsion Laboratory  
Mobility and Robotic Systems, Pasadena, CA  
Summer 2010

## SELECTED PUBLICATIONS

### Refereed Journal Articles

- "Single-Site Colectomy with Miniature In Vivo Robotic Platform", IEEE Transactions Biomedical Engineering, 60(4): 926-929, 2013.
- "Miniature Surgical Robot for Laparo-Endoscopic Single-Incision Colectomy," Surgical Endoscopy, 26(3): 727-731, 2012.
- "Laparoendoscopic Single-Site Surgery Using A Multi-Functional Miniature *In Vivo* Robot," International Journal of Medical Robotics and Computer Assisted Surgery, 7(1): 17-21, 2011.

### Refereed Conference Publications

- "Multi-Functional Surgical Robot for Laparo-Endoscopic Single-Site Colectomies," 2011 ASME International Design Engineering Technical Conference, Washington, DC, August 2011.
- "Multi-Functional Surgical Robot for Space Applications," International Academy of Astronautics 18th Humans in Space Symposium, Houston, TX, April 2011.

### Medical Conference Publications

- "Multi-Functional Robot for Laparoendoscopic Single-Site Colectomy," 2011 Annual Meeting of the Society of American Gastrointestinal and Endoscopic Surgeons, San Antonio, TX, April 2011.
- "Laparoendoscopic Single-Site Surgery Using A Multi-Functional Miniature *In Vivo* Robot," Minimally Invasive Robotics Association 5<sup>th</sup> Annual International Conference, San Diego, CA, January 2010