

# Zihan Chen

## Personal Data

**Position** Ph.D. Student / Research Assistant  
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## Education

Sep 2012 - Johns Hopkins University  
Ph.D. Candidate Computer Science (Medical Robotics)

Sep 2010 - June 2012 Johns Hopkins University  
M.S.E. Mechanical Engineering (Robotics)

Sep 2006 - May 2010 Zhejiang University  
B.E. Control Science and Engineering  
B.A. English Language and Literature

## Work Experience

2012.06 - Research Assistant, LCSR, Johns Hopkins University

2016.06-2016.08 System Analysis Intern, Intuitive Surgical, Inc.

2015.06 - 2015.09 System Analysis Intern, Intuitive Surgical, Inc.

2015.02 - 2015.05 Teaching Assistant, Johns Hopkins University  
600.436 Algorithms for Sensor-Based Robotics

2014.02 - 2014.05 Teaching Assistant, Johns Hopkins University  
530.707 Robot Systems Programming

2011.05 - 2011.07 Research Assistant, LCSR, Johns Hopkins University

## Teaching Experience

2015 Spring	Teaching Assistant, Algorithms for Sensor-Based Robotics
2014 Spring	Teaching Assistant, Robot System Programming (With ROS)

## Awards and Group Memberships

N/A

## Publications

Google Scholar Link: <https://scholar.google.com/citations?user=qxOppVkAAAAJ>

**Zihan Chen**, et al. "An open-source hardware and software platform for telesurgical robotics research." *MICCAI Workshop on Systems and Arch. for Computer Assisted Interventions, Midas Journal*: <http://hdl.handle.net/10380/3419>. 2013.

**Zihan Chen**, and Peter Kazanzides. "Force control of a non-backdrivable robot without a force sensor." *Intelligent Robots and Systems (IROS), 2013 IEEE/RSJ International Conference on*. IEEE, 2013.

Peter Kazanzides, **Zihan Chen**, Anton Deguet, Greg Fischer, R. H. Taylor, and Simon. DiMaio, "An open-source research kit for the da Vinci R surgical robot," , 2014 *IEEE/RSJ International Conference on*. IEEE, 2014.

**Zihan Chen**, and Peter Kazanzides. "Multi-Kilohertz Control of Multiple Robots via IEEE-1394 (Firewire)." *Technologies for Practical Robot Applications (TePRA), 2014 IEEE International Conference on*. IEEE, 2014.

Long Qian, **Zihan Chen** and Peter Kazanzides, "An Ethernet to FireWire Bridge for Real-Time Control of the da Vinci Research Kit (dVRK)" , 2015 *International Conference on Emerging Technology & Factory Automation*. IEEE, 2015.

Steve Vozar, **Zihan Chen**, Peter Kazanzides and Louis L. Whitcomb. "Preliminary Study of Virtual Nonholonomic Constraints for Time-Delayed Teleoperation." *Intelligent Robots and Systems (IROS), 2015 IEEE/RSJ International Conference on*. IEEE, 2015.

Peter Kazanzides, Anton Deguet, Balazs Vacvolgyi, **Zihan Chen**, and Russell H. Taylor. "Modular Interoperability in Surgical Robotics Software." *Mechanical Engineering* 137, no. 9

Long Wang, **Zihan Chen**, P Chalasani, Jason Pile, Peter Kazanzides, Russell H. Taylor and Nabil Simaan. "Updating Virtual Fixtures From Exploration Data in Force-controlled Model-based Telemanipulation." *International Design Engineering Technical Conferences and Computers and Information in Engineering Conference (ASME IDETC)*, 2016

**Zihan Chen**, Anand Malpani, Preetham Chalasani, Anton Deguet, S. Swaroop Vedula, Peter Kazanzides and Russell H. Taylor. "Virtual Fixture Assistance for Needle Passing and Knot Tying." *Intelligent Robots and Systems (IROS), 2016 IEEE/RSJ International Conference on. IEEE*, 2016.