

James M. Bern

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Education

ETH Zürich

Zürich, Switzerland

GRADUATE STUDENT

2017-Present

- PhD Candidate in Computer Science
- Advisor: Prof. Stelian Coros

Carnegie Mellon University Robotics Institute

Pittsburgh, PA

GRADUATE STUDENT

2015 - 2017

- MS in Robotics
- Advisor: Prof. Stelian Coros

California Institute of Technology

Pasadena, CA

UNDERGRADUATE STUDENT

2011 - 2015

- BS in Mechanical Engineering
- Double Minor: Computer Science + Control and Dynamical Systems
- GPA: 4.0

Publications

Interactive Design of Animated Plushies

James M. **Bern**, Kai-Hung Chang, Stelian Coros

ACM Transactions on Graphics (SIGGRAPH), 2017

Fabrication, Modeling, and Control of Plush Robots

James M. **Bern**, Grace Kumagai, Stelian Coros

IEEE/RSJ International Conference on Intelligent Robots and Systems, 2017

Reconfiguration planning for pivoting cube modular robots

Cynthia Sung, James M. **Bern**, John Romanishin, Daniela Rus

IEEE International Conference on Robotics and Automation, 2015

Invited Talks

2017 **Student Speaker**, Symposium for Computational Fabrication

MIT

Teaching

2015 **Teaching Assistant**, CS 021: Decidability and Tractability

Caltech

2014 **Teaching Assistant**, CS 171: Introduction to Computer Graphics Laboratory

Caltech

2014 **Teaching Assistant**, ME 071: Introduction to Engineering Design

Caltech

2013 **Teaching Assistant**, BI 001: Principles of Biology

Caltech

Honors & Awards

2016 **Fellow**, Presidential Fellowship

CMU

2014 **Winner**, Campus Life and Masters Award

Caltech

2014 **1st Place**, 29th Annual Engineering Design Competition

Caltech

Skills

Coding Python, C/C++, MATLAB

Other SolidWorks, OpenGL/WebGL/Three.js, Mathematica

Adobe Photoshop, Illustrator, Premier, Animate