

James M. Bern

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Education

ETH Zürich

Zürich, Switzerland

GRADUATE STUDENT

2017-Present

- PhD Candidate in Computer Science
- Advised by Prof. Stelian Coros

Carnegie Mellon University Robotics Institute

Pittsburgh, PA

GRADUATE STUDENT

2015 - 2017

- MS in Robotics
- Advised by Prof. Stelian Coros

California Institute of Technology

Pasadena, CA

UNDERGRADUATE STUDENT

2011 - 2015

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

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

Japan Toy Culture Foundation Novel Technology Paper Award for Amusement Culture

This award recognizes practical technology contributing to toys, toy models, and amusement culture.

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

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

Reconfiguration Planning for Pivoting Cube Modular Robots

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

IEEE International Conference on Robotics and Automation (ICRA), 2015

Invited Talks

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

MIT

Teaching

2017 **Teaching Assistant**, 252-0206-00L: Visual Computing

ETH Zürich

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