KRIS HAUSER
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EDUCATION

9/03 –   **Stanford University**
             Ph.D., Computer Science
             Expected graduation date: June 2008

9/99 – 5/03 **University of California at Berkeley**
             B.A., Computer Science
             B.A., Mathematics

PUBLICATIONS

Hauser, K. K., Bretl, T., Latombe, J.-C., Wilcox, B., "Motion Planning for Legged Robots in Varied Terrain". To appear in International Journal on Robotics Research, special issue on WAFR 2006.

Ng-Thowhing, V., Drumwright, E. Hauser, K. K., Wu, Q., Wormer, J., "Expanding Task Functionality in Established Humanoid Robots". To appear in IEEE Conference on Humanoid Robots, 2007.

Hauser, K. K., Ng-Thowhing, V., Gonzalez-Baños, H., "Multi-Modal Motion Planning for a Humanoid Robot Manipulation Task". To appear in International Symposium on Robotics Research (ISRR), 2007.

Hauser, K. K., Bretl, T., Harada, K., Latombe, J.-C., "Using Motion Primitives in Probabilistic Sample-based Planning for Humanoid Robots". In proceedings of Workshop on the Algorithmic Foundations of Robotics (WAFR), 2006.

Hauser, K. K., Bretl, T., Latombe, J.-C., Wilcox, B., "Motion Planning for a Six-legged Lunar Robot". In proceedings of Workshop on the Algorithmic Foundations of Robotics (WAFR), 2006.

Harada, K., Hauser, K., Bretl, T., Latombe, J.-C., "Natural Motion Generation for Humanoid Robots". In proceedings of IEEE Conference on Intelligent Robots and systems (IROS), 2006.

Hauser, K. K., Bretl, T., Latombe, J.-C., "Non-Gaited Humanoid Locomotion Planning". In proceedings of IEEE Conference on Humanoid Robots, 2005.

Hauser, K. K., Bretl, T., Latombe, J.-C., "Learning-Assisted Multi-Step Planning". In proceedings of IEEE Conference on Robotics and Automation (ICRA), 2005.

Hauser, K. K., Shen C., O'Brien, J. F., "Interactive Deformation Using Modal Analysis With Constraints". In proceedings of Graphics Interface 2003. pp. 247-255.

Shen C., Hauser, K. K., Gatchalian, C. M., O'Brien, J. F., "Modal Analysis for Real-Time Viscoelastic Deformation". Technical Sketch. ACM SIGGRAPH 2002 Conference Abstracts and Applications.

AWARDS

2007 – 2008   Siebel Scholar Fellowship

2003 – 2007   Thomas V. Jones Stanford Graduate Fellowship

RESEARCH AND WORK EXPERIENCE

1/04 –   **Stanford University**
              Research Assistant to Prof. Jean-Claude Latombe
              Researching motion planning algorithms for legged robots.

1/07 – 9/07   **Honda Research Institute of America**
              Researcher
              Part-time position, implementing manipulation planning and execution on the
              Asimo humanoid robot.

6/06 – 9/06   **Honda Research Institute of America**
              Intern
              Developed a motion planner that enables the Asimo robot to push objects across a
              table in simulation.

6/03 – 8/03   **Sony Computer Entertainment of America R&D**
              Intern
              Authored a Playstation 2 video game for a SIGGRAPH 2003 Emerging
              Technologies exhibit, controlled by a video camera using motion capture.

6/02 – 8/02   **Sony Computer Entertainment of America R&D**
              Intern
              Developed a set of utilities and libraries to create and animate elastically
              deformable content for the PlayStation 2.

2/02 – 5/03   **University of California at Berkeley**
              Research Assistant to Prof. James O'Brien
              Worked on applications of modal analysis to real-time elastic deformation.

TEACHING EXPERIENCE

9/07 – 12/07 **Stanford University**
              Course Assistant: *Motion Planning*
              Assisted students with homework and programming projects, graded homework,
              guest lectured.

4/07 – 6/07   **Stanford University**
              Course Assistant: *Motion Planning for Robots, Digital Actors, and Other Moving
              Objects*
              Devised programming projects and homework problems, assisted students with
              homework, guest lectured.

1/07 – 3/07   **Stanford University**
              Course Assistant: *Introduction to Artificial Intelligence*

Devised a homework assignment involving software programming, assisted students with homework, graded homework and exams, taught sections, guest lectured.

8/01 – 5/02   **University of California, Berkeley**
Reader: *Introduction to Computer Graphics*
Graded homework and projects.

PROFESSIONAL ACTIVITIES

INVITED AND CONFERENCE TALKS

11/07   **Conference Presenter,** International Symposium on Robotics Research
Multi-Modal Planning for a Humanoid Manipulation Task
Hiroshima, Japan

7/07   **Invited Presenter,** Int'l Conference on Applications of Computer Algebra
Numerical Methods in Motion Planning for Legged Robots
Rochester, MI

8/06   **Conference Presenter,** Workshop on Algorithmic Foundations of Robotics
Using Motion Primitives in Probabilistic Sample-based Planning for Humanoid Robots
New York, NY

12/05   **Conference Presenter,** IEEE Conference on Humanoid Robots
Non-Gaited Humanoid Locomotion Planning
Tsukuba, Japan

4/05   **Conference Presenter,** IEEE Conference on Robotics and Automation
Learning-Assisted Multi-Step Planning
Barcelona, Spain

10/03   **Conference Presenter,** Graphics Interface
Interactive Deformation Using Modal Analysis With Constraints
Halifax, Canada

REFEREED PAPERS

IEEE Transactions on Robotics
Artificial Intelligence for Engineering Design, Analysis and Manufacturing
International Conference on Advances in Computer-Human Interaction