

## Kristin Mara Branson

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Computer Science and Engineering  
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## Education

- **University of California, San Diego** San Diego, CA
  - Currently in my sixth year of the PhD program
  - M.S., Computer Science (GPA 3.959), 2002
- **Harvard University** Cambridge, MA
  - A.B. Cum Laude in Computer Science (GPA 3.31), 2000

## Work History

- **NASA Graduate Student Researcher** September, 2003 - present
  - NASA GSRP Fellowship
  - Office of Space Science
  - Advisor: Serge Belongie
  - Developing a system for automatically tracking multiple lab mice from a side view.
- **Teaching Assistant** January 2004 - March 2004
  - for CSE 150: Introduction to Artificial Intelligence
  - Professor Charles Elkan
  - University of California, San Diego
- **Graduate Student Researcher** April, 2003 - September, 2003  
University of California, San Diego La Jolla, CA
  - CAL-(IT)<sup>2</sup> Smart Vivarium Project
  - Advisor: Serge Belongie
  - Developing a system for automatically tracking multiple lab mice from a side view.
- **Teaching Assistant** January 2003 - April 2003
  - for CSE 101, Design and Analysis of Algorithms
  - Professor Sanjoy Dasgupta
  - University of California, San Diego
- **Graduate Student Researcher** April 2002 - December 2002  
University of California, San Diego La Jolla, CA
  - Advisors: Serge Belongie and Gary Cottrell
  - Created a new algorithm for dimensionality reduction, called Structured Principal Component Analysis.
  - Worked on image processing for medical applications, developing potentially patentable software for esophagus tracking.
  - Worked on modeling face recognition.
  - Worked on feature-based image mosaicing.
- **Teaching Assistant** January 2002 - March 2002

- for CSE 140, Digital Logic
- Professor Alex Orailoglu
- University of California, San Diego

**Summer Student Researcher**

June 2001 - August 2001  
Mountain View, CA

- Summer Student Researcher Program,  
Research Institute for Advanced Computer Science,  
NASA Ames Research Center

- Advisors: Robert Morris, Jeremy Frank, Ari Jonsson, and David Smith
- Modeled the environment of a constellation of Landsat-like satellites for the Remote Agent planner.

**Graduate Student Researcher**

Septemer 2000 - June 2001  
La Jolla, CA

- University of California, San Diego

- Advisor: Gary Cottrell,
- Worked on modeling facial expression recognition.

**Summer Student Researcher**

June 2000 - August 2000  
Mountain View, CA

- Summer Student Researcher Program,  
Research Institute for Advanced Computer Science,  
NASA Ames Research Center

- Advisor: David Smith
- Worked on comparing the Remote Agent Planner to more standard planning algorithms.

**NASA Academy Summer Student Researcher**

June 1999 - August 1999  
Edwards Air Force Base, CA

- NASA Academy Program,  
Dryden Flight Research Center

- Advisor: Kajal Gupta
- Worked on developing a CAD program for aircraft design and simulation.

## Publications

S. Agarwal, K. Branson, and S. Belongie. *Higher Order Learning with Graphs*, ICML 2006.

Branson, Kristin M. and Belongie, Serge J. *Tracking multiple mouse contours (without too many samples)*, CVPR 2005.

Serge Belongie, Kristin Branson, Piotr Dollar, Vincent Rabaud. *Monitoring Animal Behavior in the Smart Vivarium*, Measuring Behavior, 2005.

Branson, Kristin M. and Belongie, Serge J. (2003) *Three brown mice: see how they run*, In Proc. of the Joint IEEE Workshop on Visual Surveillance and Performance Evaluation of Tracking and Surveillance at ICCV, Nice France.

Cottrell, Garrison W., Branson, Kristin and Andrew J. Calder (2002) *Do expression and identity need separate representations?* In Proceedings of the 24th Annual Cognitive Science Conference, Fairfax, Virginia. Mahwah: Lawrence Erlbaum.