

LISA J. MILLER

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EDUCATION

- PhD Program** University of Hawaii at Mānoa, Computer Science 2012 – present
Advisor: Susanne Still
Research in Machine Learning and Optimization
- MS** University of Hawaii at Mānoa, Computer Science August 2012
Advisor/Committee Chair: Susanne Still
Thesis: Information-Theoretic Clustering of Astrobiology Documents
- MS/PhD Program** Brown University, Computer Science 2008 – 2009
Research in Robotics
- BS** University of Hawaii at Mānoa, Computer Science May 2008
Graduated With Distinction
- BA** University of Hawaii at Mānoa, French May 2008
Graduated With Distinction

HONORS AND AWARDS

- ARCS Award** 2011
Achievement Reward for College Scientists
- Dean's List** 2004 – 2008
UH Mānoa, College of Arts and Sciences
- Merit Based Tuition Waiver** 2007 – 2008
UH Mānoa, College of Arts and Sciences
- NSF CSEMS** 2006 - 2007
Computer Science, Engineering, and Mathematics Scholarship
- SUPERB-IT** 2007
Undergraduate Research Program, UC Berkeley
- Phi Beta Kappa** 2007
Accepted and Inducted to Alpha of University of Hawaii

RESEARCH EXPERIENCE

Interactive Learning Project, University of Hawaii at Mānoa 2010 to present
Independent Reading and Research, Advisor: Susanne Still

- Implement new interactive learning algorithm on simulated and embodied robot.
- Install and become familiar with ROS robot operating system and Gazebo 3-D simulator.
- Review behavioral learning, information theory, and optimization literature.

AIRFrame Project, UH NASA Astrobiology Institute 2009 to present
Research Assistant, Advisors: Susanne Still and Rich Gazan

- Masters thesis project using information bottleneck document clustering method to find related themes in astrobiology-related scholarly articles.
- Develop improved feature selection algorithm for clustering full-text documents.
- Build proof-of-concept database and website.

VotesBy.us Project, University of Hawaii 2009
Research Assistant, Advisor: Scott Robertson

- Build interface to VoteSmart.com API to retrieve ballot information.

EeePC/iCreate Robot Project, Brown University 2008
Independent Reading and Research, Advisor: Chad Jenkins

- Develop process for installing and running Ubuntu operating system and Player robot interface on Asus EeePCs mounted on iRobot Create robots.
- Build instructional website.

PUBLICATIONS

Conference Papers

Miller, L. and Still, S., “Information Theoretic Clustering of Astrobiology Documents,” Astrobiology Science Conference, April 16-20, 2012, Atlanta, GA.

Miller, L. and Gazan, R., “Adaptation of an Open Source Semantic and Conceptual Retrieval Framework to the Astrobiological Domain,” Astrobiology Science Conference, April 26-29, 2010, League City, TX.

Gazan, R and Miller, L., “Practical Mechanics of Interdisciplinary Science,” Astrobiology Science Conference, April 26-29, 2010, League City, TX.

In Review

L. Miller, S. Still and R. Gazan, “Document classification and visualization for the support of interdisciplinary collaboration” In Review. Computer Supported Cooperative Work and Social Computing Conference, 2014.

COMMUNITY SERVICE

University of Hawaii, Graduate Student Organization

Computer Science Dept. Representative, Honolulu, HI, 8/2011 – present

Hukilau Hui – Invasive algae removal club

Secretary, Honolulu, HI, 12/2010 – 12/2012

Diamond Head Community Garden

Secretary, Honolulu, HI, 1/2012 – 1/2013

Keauhou Canoe Club

Youth Paddling Coach, Keauhou-Kona, HI, 2000 - 2004

LANGUAGES

English: Native Language

French: Intermediate Listener and Speaker, Advanced Reading and Writing

COMPUTER SKILLS

Programming: C++, C, Perl, JavaScript, PHP, and Python

Applications: MATLAB, ROS robot operating system, Gazebo 3-D simulator, Player robot Interface, NetLogo multi-agent environment.

Platforms: Ubuntu and Debian Linux, Ubuntu Linux webserver.

OTHER

U.S. Citizen

REFERENCES

Dr. Susanne Still,

Information and Computer Sciences

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Dr. Rich Gazan

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