# Mario Barrenechea - Curriculum Vitae


**Contact Information**

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**Objective**

I am currently a 3rd year Ph.D. student studying computer science with a specialization in human-centered software engineering. Primarily, I am focused on studying collaborative tools and methods to support volunteer tech communities in designing and implementing large-scale software systems for disaster preparedness, response, and recovery. I am always seeking computer science research and development opportunities in academic, government, and industrial settings to round out my perspective on software engineering problems.

**Research Goal**

My research goal is to improve the quality and reliability of software systems and promote these advancements to the software engineering community.

**Research Interests**

Crisis informatics, software processes and methodologies, developer tools and frameworks, computer-supported cooperative work, user-centered software design and usability methods, program analysis techniques (static and dynamic).

**Education**

**The University of Colorado at Boulder**, Boulder, CO USA

Ph.D.,Department of Computer Science, Expected May 2016

- Advisor: Professor Kenneth Anderson
- Area of Study: Software Engineering
- Research Groups: Project EPIC (Empowering the Public with Information in Crisis)

**The University of Massachusetts at Amherst**,Amherst, MA USA

B.S., Department of Computer Science, May 2011

- *Cum Laude*, With Commonwealth College Honors
- Thesis: "Visualization of Process Guidance"
- Advisors: Lori A. Clarke and Leon J. Osterweil
- Research Group: LASER ( Laboratory for Advanced Software Engineering Research)

**Accepted Papers**

Barrenechea, M., Barron, J., White, J. (2012). No place like home: pet-to-family reunification after disaster. Proceedings of the 2012 ACM annual conference extended abstracts on Human Factors in Computing Systems. Retrieved from `http://dl.acm.org/citation.cfm?id=2212433`

**Talks**

- January, 2013. CUBoulder Graduate Student Colloquium: "Engineering for Disaster Management: A Human-centered Software Process for Designing and Developing Interactive Systems for Mass Emergency Events"
- September, December 2012. CSCI 1000 - Freshmen Engineering Seminar: "Discovering More: CS Research"

- November, 2011. CSCI 3308 - Software Methods and Tools: "Software Engineering in the Medical Domain"
- May, 2011. Undergraduate Senior Thesis at LASER: "Visualization of Process Guidance".

## Teaching Experience

CSCI 3308 - Software Methods and Tools - Teaching Assistant, Fall 2011
- Guest Lectured "Software Engineering in the Medical Domain"

CSCI 1300 - Introduction to Programming - Teaching Assistant, Spring 2012

## Software Projects

EmergencyPetMatcher (EPM)
- Managed a four-person graduate student developer team in designing and developing EPM, a web application for reporting, matching, and verifying lost and found pets as a collaborative effort during disasters.

Project EPIC Analyze
- Currently managing a team to construct an internal web application to provision the annotation, browsing, and filtering capabilities of large-scale Twitter datasets for the Project EPIC analysts.

## Awards

2012 ACM SIGCHI Student Design Competition Finalist
- Fourth place "No Place Like Home" Design Prototype

2012 National Science Foundation (NSF) Graduate Research Fellowship (GRF)
- NSF GRF Honorable Mention based on essays, academic performance, and recommendation letters.

NEUCS (New England Undergraduate Computing Symposium) 2011
- Best Overall Individual Project Presenter for 2011

STEM (Science Technology Education Mathematics)
- STEM Internship Match Scholarship for Internship at Vertica Systems, 2008