Mario Barrenechea

CONTACT
INFORMATION

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OBJECTIVE

I am a motivated, hard working student pursuing software engineering research and development opportunities that will challenge me to become a knowledgeable, experienced professional in the academic and industrial work environment.

EDUCATION

- 3rd year Ph.D. student in computer science specializing in software engineering and studying with Ken Anderson at the University of Colorado at Boulder.
- Bachelors of Science (BS) in computer science with cum laude honors (3.5 GPA) from the University of Massachusetts at Amherst.

TECHNICAL

- **SE processes** {agile, rapid prototyping, plan-driven}
- **Design processes** {personas, scenarios, user Testing}
- **OO analysis, design, and design patterns.**
- **Management**: small (2-3) to medium scale (10+) teams.
- **Static and dynamic analysis techniques** {testing, coverage analysis, assertions}
- **Development Editors:** {Sublime, Eclipse, Emacs, Netbeans, Visual Studio}
- **Databases:** {SQLite3, PostgreSQL, MongoDB }
- **Web Frameworks:** {Django, Rails }
- **Programming Languages:** {Java, Python, Ruby, C/C++}, Web {HTML/CSS/JS}
- **Version Control:** {Git, SVN}

PROFESSIONAL
EXPERIENCE

EPIC (Empowering the Public with Information in Crisis) - Graduate Researcher and Developer (Fall 2011 - Current)
- Studying the behaviors of people using Information and Communication Technology (ICT) during and after mass emergency events. I am particularly interested in studying software methodologies, tools, and techniques for aiding volunteer technology communities (VTCs) that are forming out of humanitarian efforts (e.g. Ushahidi, OpenStreetMap) to build systems to respond to such crisis events.
- Rolling out EmergencyPetMatcher (EPM), a web application for helping match lost and found pets as a collaborative effort by the public during and after a disaster.
- Currently leading a four-developer team to create an analytics dataset viewer for provisioning the browsing, searching, filtering, and annotating of large Twitter datasets.

Vertica Systems - Software Engineering Intern (Summer 2008)
- Collaborated with interns to design and develop a profiling and graphical visualization tool called *Viztool* that allows Vertica developers to address performance bottlenecks with database queries.
- Experienced the thrill of interacting and communicating with professional engineers and gave two oral presentations based on progress of Viztool.

ACHIEVEMENTS

- Awarded National Science Foundation (NSF) Graduate Research Fellowship (GRF) Honorable Mention for 2012 based on three essays, recommendation letters, and research platform.
- Elected President and Vice President of the UMass Amherst ACM Student Chapter from 2008 to 2011.
- Awarded the STEM Scholar Internship Match Scholarship in 2008 for my professional contributions to the engineering team at Vertica Systems (now acquired by HP).