Amirhosein Azarbakht

Contact Information

Tel. (347) 276-0790
Tel. (When in Canada) 604-505-3993
azarbaam@eecs.oregonstate.edu
http://eecs.oregonstate.edu/people/azarbakht

3048 Kelley Engineering Center
Corvallis, OR 97330
USA

Education

Ph.D., Computer Science *(2011-present)*
Oregon State University, Corvallis, OR USA
Thesis Title: Temporal Analysis and Visualization of Dynamic Collaboration Graphs of Open Source Software Development Community Forking — Advisor: Prof. Carlos Jensen

M.S., Computer Science *(2009-2011)*
Chalmers University of Technology, Gothenburg Sweden
M.S. Thesis: An Evolutionary Algorithm for Computer-Generated Music Ranking

B.S., Computer Engineering *(2004-2008)*
Azad University of Central Tehran, Tehran Iran

Area of Research

My research focuses on analyzing software development communities. Particularly free/libre and open source software development communities. I am currently working on a project, under supervision of Prof. Carlos Jensen, that focuses on analyzing collaboration of software developers, especially the software development communities that have forked; forking is when a software community splits into two software project communities. Our goal is to identify unhealthy dynamics that hinder collaboration.

Professional Skills

Programming: Java (expert), Python (proficient), C (proficient), MATLAB (expert), C++ (prior experience), Bash (proficient)
Databases: SQL, Hive
Tools: Git, Hadoop, LaTeX
Statistical Analysis: R (expert)
Platforms: Linux

Research Experience

Software Engineering & HCI Lab **Research Assistant**
3048 EECS Department, Oregon State University *(2012-present)*
Research on social dynamics of open source software development

Computer Vision Lab **Research Assistant**
2126 EECS Department, Oregon State University *(2011-2012)*
Research on activity recognition in videos

Personal Projects

A Machine Learning Approach for Taming Compiler Fuzzers using Ensemble Clustering *(2014)*
We developed a comparative approach to tame Compiler Fuzzers. The purpose of the project was to practice machine learning by doing, as well as to experience with different clustering techniques. We improved the state-of-the-art, as our approach found more unique bugs than the state-of-the-art.

Augmented Reality Mirror: aMir *(2010)*
We developed a prototype of a augmented mirror called aMir. The purpose of the project was to practice interaction design by doing, as well as to experience the value of prototyping. The project also brought together technical knowledge with more design-oriented thinking of IT.

Corvallis Android App *(2013)*
In context of the course Mobile and Cloud Software Development I developed an android app called Corvallis for the city of Corvallis. The purpose of the project was to practice mobile software development, as well as to create a means to keep track of the events in the little town I was living in.

Teaching Experience

User Experience (UX) **Instructor**
Electrical Engineering & Computer Science Department *Summer 2014, Fall 2014, Winter 2015*
Oregon State University *Spring 2015, Summer 2015*

Data Structures **Teaching Assistant**
Electrical Engineering & Computer Science Department *Fall 2012, Winter 2012, Fall 2013,*
Oregon State University *Spring 2013, Spring 2014*

Publications

- Azarbakht, A. and C. Jensen, "Drawing the Big Picture: Temporal Visualization of Dynamic Collaboration Graphs of OSS Software Forks," *Proc. 10th Int'l. Conf. Open Source Systems*, 2014.
- Azarbakht, A. and C. Jensen, "Temporal Visualization of Dynamic Collaboration Graphs of OSS Software Forks," *Proc. Int'l. Network for Social Network Analysis Sunbelt conf.*, 2014.
- Azarbakht, A., "Drawing the Big Picture: Analyzing FLOSS Collaboration with Temporal Social Network Analysis," *Proc. 9th Int'l. Symp. Open Collaboration*, 2013.
- Azarbakht, A. and C. Jensen, "Analyzing FOSS Collaboration & Social Dynamics with Temporal Social Networks," *Proc. 9th Int'l. Conf. Open Source Systems Doct. Cons.*, 2013.
- Davidson, J, R. Naik, A. Mannan, A. Azarbakht, C. Jensen, "Investigating Older Adults' Experiences with Contributing to Free/Open Source Software," *Proc. IEEE Symp. Visual Languages and Human-Centric Computing*, 2014.
- Azarbakht, A., "Temporal Visualization of Collaborative Software Development in FOSS Forks," *Proc. IEEE Symp. Visual Languages and Human-Centric Computing*, 2014.

Graduate Coursework

- Machine Learning
- Artificial Intelligence
- Stochastic Optimization
- Statistical Methods of Data Analysis
- Theory of Statistics I & II
- Computer Vision
- Algorithms & Data Structures
- Mobile & Cloud Software Development
- Unix Internals: FreeBSD Operating System
- Qualitative & Quantitative Research Methods
