# POOYAN BEHNAMGHADER

Department of Computer Science, University of Southern California 941 Bloom Walk (SAL 339), USC, LA, CA 90089-0781, USA

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#### **RESEARCH INTERESTS**

- ◆ Software Architecture Recovery, Software Repository Mining
- Distributed Systems, Cloud Computing

#### **EDUCATION**

# **PhD Student, Computer Science**

Fall 2013 - Present

- University of Southern California, Los Angeles, CA, U.S.A.
  - Advisor: Professor Nenad Medvidović

# **Bachelor of Science, Computer Engineering**

Fall 2008 - Spring 2013

- ◆ University of Tehran, Tehran, Iran
  - GPA: 18.42 (of 20) Ranked 1<sup>st</sup>

# **Diploma, Mathematics and Physics**

Fall 2004 - Spring 2008

- ◆ Allameh-Helli, Tehran, Iran
- GPA: 19.53 (of 20)

#### **RESEARCH EXPERIENCES**

# Department of Computer Science, University of Southern California, USA

♦ Research Assistant of Prof. N. Medvidović

Fall 2013 – Present

- Extending and improving ARCADE, a software workbench that employs a suite of architecturerecovery techniques and metrics for different aspects of architectural change
- Developing a toolset to use cloud computing in order to semi-automatically run large-scale software architecture recovery analyses on the history of systems in software repositories
- Improving Mahjong, a distributed software system that uses idle cycles on remote but networked computers to solve NP-complete problems

# Department of Informatics, University of Zurich, Switzerland

♦ Research Assistant of Prof. H. Gall

Summer 2015

- Studying of the scalability, reusability, and reliability of empirical studies in programming analysis
- Studying architecture-centric benchmarking of Infrastructure As A Service (IaaS) and Mobile Backend As A Service (MBaaS)

#### School of Computer and Communication Science, EPFL, Switzerland

• Research Assistant of Prof. C. Petitpierre

Summer 2012

- Developing a DSL using Xtext framework for generating Android Interfaces
- Developing a compiler using Xtext for compiling Xtend templates
- Developing a parser using JavaCC parser generator for parsing Xtext files

#### School of Electrical and Computer Engineering, University of Tehran, Iran

♦ Research Assistant of Dr. F. Ghassemi

Fall 2012 - Summer 2013

• Providing a state space generator for process terms of Restricted Broadcast Process Theory (RBPT) extended with abstract data types, a formal framework for specification and verification of Mobile Ad-hoc Networks, by translating the specifications to ML

# School of Mechanical Engineering, University of Tehran, Iran

◆ Research Assistant of Prof. M. Raisee

Summer 2011 - Fall 2012

 Developing numerical solvers using OpenFoam CFD software package for the problem of "Fluid Dynamics Modeling of Advanced Oxidation Process in UV-H<sub>2</sub>O<sub>2</sub> Photoreactors"

#### **NOTABLE HONORS AND AWARDS**

◆ Provost's PhD Fellowship for four years from the University of Southern California 2013

- Also offered fellowships and/or research assistantships from UT Austin, U Illinois, Georgia Tech, UC San Diego, U Toronto, and EPFL
- ◆ Winner of the Faculty of Engineering (FOE) from the University of Tehran 2012
- Accepted into the EPFL competitive internship program granted with full scholarship 2012
- ◆ Ranked 3<sup>rd</sup> in the 16<sup>th</sup> Iran National University Students' Olympiad in Computer Eng. 2011
  - Member of Iran's National Elites Foundation and received multiple grants
  - Qualified to pursue graduate studies in any Iranian university with full scholarship
- ◆ 11<sup>th</sup> Place in the 12<sup>th</sup> Regional Contest of ACM ICPC in Asia region, Tehran site 2010
  - Member of University of Tehran's ACM ICPC team in 2009 and 2010
- ◆ Top 0.1% of the nationwide entrance exam of Iranian universities 2008
  - Received a Faculty of Engineering Scholarship as an exceptional student

### **PUBLICATIONS**

- ◆ Sonal Mahajan, Bailan Li, Pooyan Behnamghader, William G. J. Halfond. "Using Visual Symptoms for Debugging Presentation Failures in Web Applications." In Proceedings of the 9th IEEE International Conference on Software Testing, Verification and Validation (ICST 2016), Chicago, USA, April 2016.
- ◆ Duc Le\*, Pooyan Behnamghader\* (co-first author), Joshua Garcia, Daniel Link, Arman Shahbazian and Nenad Medvidovic. "An Empirical Study of Architectural Change in Open-Source Software Systems." In Proceedings of the 12th Working Conference on Mining Software Repositories (MSR 2015), Florence, Italy, May 2015.

# **TEACHING EXPERIENCES**

#### School of Electrical and Computer Engineering, University of Tehran, Iran

• Teaching Assistant in the following courses:

System Analysis and Design

Software Engineering

Programming Languages

· Design and Analysis of Algorithms

Advance Programming

Spring 2012, Spring 2013

Fall 2012

Fall 2012

Spring 2012

Fall 2009

#### ACTIVITIES

# Department of Computer Science, University of Southern California, USA

◆ Board Member (President): PhD Student Committee

Fall 2015 - Present

◆ Board Member (Officer): PhD Student Committee

Spring 2014 – Spring 2015

Thornton School of Music, University of Southern California, USA

♦ Singer: Apollo Men's Chorus

Fall 2014 - Spring 2015

# School of Electrical and Computer Engineering, University of Tehran, Iran ◆ Board Member (Secretary): ACM Student Chapter ◆ Board Member (Secretary): Representatives Community

Fall 2010 – Spring 2011

Spring 2009 – Spring 2010