# Pooyan Behnamghader

PhD Student Updated: July 2, 2016
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RESEARCH INTERESTS Software Architecture Recovery, Software Repository Mining Distributed Systems, Cloud Computing

EDUCATION

### University of Southern California, Los Angeles, California USA

Ph.D. Student, Computer Science, August 2013 (expected graduation date: May 2018)

- Research Topic: "Cloud-Based Software Architecture Analysis"
- Advisor: Nenad Medvidovic

# University of Tehran, Tehran, Iran

B.S., Computer Engineering, May, 2013

- GPA: 18.42 (of 20) Ranked 1<sup>st</sup>
- Advisor: Fatemeh Ghassemi

#### Honors and Awards

Recipient of **Provost's Ph.D. Fellowship** from the University of Southern California **2013**Also offered fellowships and/or research assistantships from U Illinois, UT Austin, Georgia Tech, UC San Diego, U Toronto, and EPFL

Recipient of the Faculty of Engineering (FOE) award from the University of Tehran

Ranked 1<sup>st</sup> in a class of 103

Recipient of the EPFL competitive undergraduate summer internship scholarship 2012

Ranked 3<sup>rd</sup> in the 16<sup>th</sup> Iran National University Students Olympiad in Computer Eng. 2011

11<sup>th</sup> Place in the 12th Regional Contest of ACM ICPC in Asia region
 Member of University of Tehrans ACM ICPC team in 2009 and 2010

# JOURNAL PUBLICATIONS

**Pooyan Behnamghader**, Duc Le, Joshua Garcia, Daniel Link, Arman Shahbazian and Nenad Medvidovic. A Large-Scale Study of Architectural Evolution in Open-Source Software Systems. Journal of Empirical Software Engineering. In Press.

# Conference 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 Minh Le\*, Pooyan Behnamghader\* (co-first author), Joshua Garcia, Daniel Link, Arman Shahbazian, and Nenad Medvidovic. 2015. An empirical study of architectural change in open-source software systems. In Proceedings of the 12th Working Conference on Mining Software Repositories (MSR '15). IEEE Press, Piscataway, NJ, USA, 235-245.

### ACADEMIC EXPERIENCE

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

Doctoral Student under supervision of Dr. N. Medvidovic August 2013, June 2016

- Extending and improving ARCADE, a software workbench that employs a suite of architecturerecovery techniques and metrics for different aspects of architectural change
- Developing a tool-set 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

Visiting Doctoral Student under supervision of Dr. H. Gall May - September 2015

- Studying the scalability, re-usability, and reliability of empirical studies in software engineering
- 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

Undergraduate Research Assistant of Dr. C. Petitpierre

May - August 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

Undergraduate Research Assistant of Dr. F. Ghassemi September 2012, May 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

Undergraduate Teaching Assistant in the following courses: September 2011, May 2013

- System Analysis and Design
- Software Engineering
- Programming Languages
- Design and Analysis of Algorithms
- Advance Programming

Undergraduate Research Assistant of Dr. M. Raisee

May - December 2011

• Developing numerical solvers using OpenFoam CFD software package for the problem of Fluid Dynamics Modeling of Advanced Oxidation Process in UV-H2O2 Photoreactors

# STARTUP EXPERIENCE

### AmberMelon Smart Watch, Los Angeles, California USA

#### Co-founder and Technical Lead

September 2015, May 2016

- Developing an Android launcher application based on AmberMelon educational requirements.
- Developing a cloud-based server-less educational platform for AmberMelon on Amazon AWS.
- Leading Android and iOS mobile app development teams.
- Partnerships with Qualcomm, Pegatron Corp. Ingenic Semiconductor Co, and Compal Electronics Inc.

#### Huntus Sharing Economy Platform, Los Angeles, California USA

### Co-founder and Technical Lead

February 2015, March 2016

- Developing a cross platform application using Xamarin for client-side of Huntus sharing economy platform
- Developing a cloud-based back-end on Microsoft Azure

#### Basir Tech., Tehran, Iran

# Computer Vision Developer

May - September 2007

• Developing computer vision techniques based on neural networks for license plate recognition

### LEADERSHIP EXPERIENCE

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

**President** of the Computer Science PhD Student Committee August 2015, May 2016 Board Member of the Computer Science PhD Student Committee January 2014, July 2015

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

**Secretary** of the ACM Student Chapter

August 2010, July 2011

• Four times worlds top-five ACM Student Chapter Excellence Award winner since 2011

**Secretary** of the Representatives Community

July 2009, May 2010

Computer Skills Languages: Java, C++, Bash, LATeX

Platforms: Android Open Source Platform, Amazon AWS

Operating Systems: Unix/Linux, Windows.