Negar Ghorbani

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Education

University of California, Irvine, Ph.D. in Software Engineering, 2016 - present
Donald Bren School of Information and Computer Science
GPA: 3.98/4

Sharif University of Technology, B.S. in Computer Engineering, 2011 - 2016
Department of Computer Engineering

Research Experience & Publications

Graduate Research Assistant Sep 2016 - Present

Software Engineering and Analysis Lab (SEAL), Conducting research in the areas of Software Engineering, Program Analysis, Software Testing, and Mobile Apps Security, under supervision of Dr. Sam Malek and Dr. Joshua Garcia
University of California, Irvine

- Negar Ghorbani, Joshua Garcia, Sam Malek, "**Detection and Repair of Architectural Inconsistencies in Java**", International Conference on Software Engineering (ICSE), Montreal, QC, Canada, May 2019. (21% acceptance rate)
- Joshua Garcia, Ehsan Kouroshfar, Negar Ghorbani, and Sam Malek, "**Forecasting Architectural Decay from Evolutionary History**", EEE Transactions on Software Engineering (TSE), 2021
- Hamid Bagheri, Jianghao Wang, Jarod Aerts, Negar Ghorbani, and Sam Malek, "**Flair: Efficient Analysis of Android Inter-Component Vulnerabilities in Response to Incremental Changes**", to be published in Empirical Software Engineering (EMSE)
- Alireza Sadeghi, Reyhaneh Jabbarvand, Negar Ghorbani, Hamid Bagheri, Sam Malek, "**A Temporal Permission Analysis and Enforcement Framework for Android**", International Conference on Software Engineering (ICSE), Gothenburg, Sweden, May 2018. (21% acceptance rate)
- Joshua Garcia, Mahmoud Hammad, Negar Ghorbani, Sam Malek, "**Automatic Generation of Inter-Component Communication Exploits for Android Applications**", ACM SIGSOFT Symposium on the Foundations of Software Engineering (ESEC/FSE), Paderborn, Germany, September 2017. (21% acceptance rate)

Applied Scientist Intern March 2021 - Present

Microsoft Research, Data & AI Applied Science, Redmond, WA

- Conducting research in Machine Learning for Automated Software Engineering.

Software Engineering Research Intern Jun - Sep 2020

Fujitsu Laboratories of America (FLA), Sunnyvale, CA

- Mining and fixing software bugs using crowd intelligence and unsupervised machine learning.

Research Assistant Jun 2015 - Jul 2016

Institute for Studies in Theoretical Physics and Mathematics (IPM)

- R. Entezari-Maleki, S.E. Etesami, N. Ghorbani, A.A. Niaki, L. Sousa, and A. Movaghar, "**Modeling and Evaluation of Service Composition in Commercial Multi-Clouds using Timed Colored Petri Nets**", IEEE Transactions on Systems, Man, and Cybernetics: Systems.

Work Experience

Morgan Stanley, New York, NY Jun - Sep 2019
Software Engineering Intern

- Designing and developing dynamic and static optimization methods in a framework for distributed and parallelized graph based calculations in Scala.

Pishtazan Andishe Pouya, Tehran, Iran Jan - Jul 2016
Software Engineering Intern

- Design and analysis of models for software information systems and web applications.

VADA Future Communications,Tehran, Iran Jan - Dec 2014
Software Developer

- Designed, developed, and maintained mobile and web applications.

Technology Skills

- Programming Languages: Java, Python, Android
  Familiar with: Scala, Matlab, C, C++
- Web Development: Django, HTML, CSS, Javascript, JQuery, AngularJS
- Software Engineering: Software Analysis and Testing, Software Architecture, Agile, Scrum, Object Oriented Design Patterns
- Tools: Soot static analysis framework, Eclipse, Android Studio

Notable Projects

- **ERP System:** Analyzed, designed and implemented a desktop based Enterprise Resource Planning system written in Java, in RUP process.
- **Simorgh Hotel Reservation System:** Designed and implemented a web based hotel reservation system written in Python-Django, HTML and JavaScript.
- **Pingu Search:** Implemented a simple search engine for information retrieval of a set of existing publications on researchgate.com.
- **Secure E-Voting System:** Designed and implemented of a secure E-Voting protocol written in Java.
- **Portal for a smart classroom in Computer Engineering department of Sharif University:** Including documentation, user studies, and developing a website.
- **Simulation of Evolution:** A multi-thread simulation of the life and evolution in a visionary planet written in Java.
- **Numerical methods application:** A graphical Matlab application developed supporting over 30 numerical algorithms.
- **A Simple Compiler:** A compiler in JAVA programming language.
- **An Artificial Agent for 2048 Game:** written in SWI Prolog.

Awards

- Recipient of the first Richard N. Taylor Graduate Award in Software Engineering
- National Science Foundation (NSF) travel award to attend ASE 2019
- SIGSOFT CAPS Travel grant to attend ICSE 2018, ACM SIGSOFT, 2018
- GHC Scholarship to attend Grace Hopper Celebration of Women in Computing, 2018
- Computing Research Association scholarship to attend the 2018 CRA-W Grad Cohort for Women, 2018
- Chair's Award, UC Irvine, 2016
- Graduate Dean's Recruitment Fellowship, UC Irvine, 2016

Volunteering & Service

- Sub-Reviewer at ICSA 2021, ECSA 2019, ECSA 2018, and MobileSoft 2018
- Founding member of Women in CyberSecurity (WiCyS) student chapter at UCI
- Student volunteer at ICSE conference 2018
- Student volunteer at Grace Hopper Celebration of Women in Computing 2017