Negar Ghorbani

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Education

University of California, Irvine, Ph.D. in Software Engineering,   Oct 2021
Donald Bren School of Information and Computer Science
GPA: 3.98/4

Sharif University of Technology, B.S. in Computer Engineering,   Jun 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

- 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**", Empirical Software Engineering (EMSE) 2021

- 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.

- 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.

- 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.

Applied Scientist Intern   Mar - Sep 2021

Microsoft, Data & AI research at Microsoft Developer Division (DevDiv) , Redmond, WA

- Conducting research in machine learning for automated software engineering
- Program merge conflict resolution via neural transformers

Software Engineering Research Intern   Jun - Sep 2020

Fujitsu Laboratories of America, 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**", to appear in the IEEE Transactions on Systems, Man, and Cybernetics: Systems

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

Work Experience

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

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

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

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

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

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

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

Technology Skills

- Programming Languages: Java, Python, Android, Matlab, SQL
  Familiar with: Scala, C, C++, Prolog, Verilog
- Software Engineering: Program Analysis, Software Testing, Software Architecture, Agile, Scrum, Object Oriented Design Patterns
- Tools: Soot Static Analysis framework, Intellij IDEA, Eclipse, Visual Studio, Android Studio
- Web Development: Django, HTML, CSS, Javascript, JQuery, AngularJS

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.
- **Simulation of Evolution:** A multi-thread simulation of the life and evolution in a visionary planet written in Java.
- **A Simple Compiler:** A compiler in JAVA programming language.
- **An Artificial Agent for 2048 Game:** written in SWI Prolog.

Volunteering & Service

- Member of Women in CyberSecurity (WiCyS) student chapter at UCI
- Student Volunteer at International Conference on Software Engineering (ICSE) 2018
- Student Volunteer at Grace Hopper Celebration of Women in Computing 2017