

# Negar Ghorbani

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**Education**      **University of California, Irvine**, Ph.D. in Software Engineering, Jun 2022  
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**", IEEE 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 Research, Developer Division (DevDiv) Data & AI, 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

<b>Work Experience</b>	<b>Software Engineering Intern</b> Morgan Stanley, New York, NY	Jun - Sep 2019
	<ul style="list-style-type: none"> <li>Designing and developing dynamic and static optimization methods in a framework for distributed and parallelized graph based calculations in Scala.</li> </ul>	
	<b>Software Engineering Intern</b> Pishtazan Andishe Pouya, Tehran, Iran	Jan - Jul 2016
	<ul style="list-style-type: none"> <li>Design and analysis of models for software information systems and web applications.</li> </ul>	
	<b>Software Developer</b> VADA Future Communications, Tehran, Iran	Jan - Dec 2014
	<ul style="list-style-type: none"> <li>Designed, developed, and maintained mobile and web applications.</li> </ul>	
<b>Awards</b>	<ul style="list-style-type: none"> <li>Recipient of the first Richard N. Taylor Graduate Award in Software Engineering</li> <li>National Science Foundation (NSF) travel award to attend ASE 2019</li> <li>SIGSOFT CAPS Travel grant to attend ICSE 2018, ACM SIGSOFT, 2018</li> <li>GHC Scholarship to attend Grace Hopper Celebration of Women in Computing, 2018</li> <li>Computing Research Association scholarship to attend the 2018 CRA-W Grad Cohort for Women, 2018</li> <li>Chair's Award, UC Irvine, 2016</li> <li>Graduate Dean's Recruitment Fellowship, UC Irvine, 2016</li> </ul>	
<b>Technology Skills</b>	<ul style="list-style-type: none"> <li>Programming Languages: Java, Python, Android, Matlab, SQL Familiar with: Scala, C, C++, Prolog, Verilog</li> <li>Software Engineering: Program Analysis, Software Testing, Software Architecture, Agile, Scrum, Object Oriented Design Patterns</li> <li>Tools: Soot Static Analysis framework, IntelliJ IDEA, Eclipse, Visual Studio, Android Studio</li> <li>Web Development: Django, HTML, CSS, Javascript, JQuery, AngularJS</li> </ul>	
<b>Notable Projects</b>	<ul style="list-style-type: none"> <li><b>ERP System:</b> Analyzed, designed and implemented a desktop based Enterprise Resource Planning system written in Java, in RUP process.</li> <li><b>Simorgh Hotel Reservation System:</b> Designed and implemented a web based hotel reservation system written in Python-Django, HTML and JavaScript.</li> <li><b>Pingu Search:</b> Implemented a simple search engine for information retrieval of a set of existing publications on researchgate.com.</li> <li><b>Secure E-Voting System:</b> Designed and implemented of a secure E-Voting protocol written in Java.</li> <li><b>Simulation of Evolution:</b> A multi-thread simulation of the life and evolution in a visionary planet written in Java.</li> <li><b>A Simple Compiler:</b> A compiler in JAVA programming language.</li> <li><b>An Artificial Agent for 2048 Game:</b> written in SWI Prolog.</li> </ul>	
<b>Volunteering &amp; Service</b>	<ul style="list-style-type: none"> <li>Member of Women in CyberSecurity (<a href="#">WiCyS</a>) student chapter at UCI</li> <li>Student Volunteer at International Conference on Software Engineering (ICSE) 2018</li> <li>Student Volunteer at Grace Hopper Celebration of Women in Computing 2017</li> </ul>	