

# Negar Ghorbani

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<b>Education</b>	<b>University of California, Irvine</b> , Ph.D. in Software Engineering, Donald Bren School of Information and Computer Science	Aug 2022
	<b>Sharif University of Technology</b> , B.S. in Computer Engineering, Department of Computer Engineering	Jun 2016
<b>Research Experience &amp; Publications</b>	<b>Research Scientist</b> Meta Inc., ( <a href="#">Probability</a> ) team, focusing on applying machine learning across the stack to improve efficiency for engineers, data scientists, and systems.	Sep 2022 - Present
	<b>Graduate Research Assistant</b> Software Engineering and Analysis Lab ( <a href="#">SEAL</a> ), Conducting research in the areas of software analysis and testing and machine learning for automated software engineering Under supervision of Dr. Sam Malek and Dr. Joshua Garcia University of California, Irvine	Sep 2016 - Aug 2022
	<ul style="list-style-type: none"><li>• A. Svyatkovskiy, S. Fakhoury, <a href="#">N. Ghorbani</a>, T. Mytkowicz, E. Dinella, C. Bird, J. Jang, N. Sundaresan, and S. K. Lahiri, "<b>Program Merge Conflict Resolution via Neural Transformers</b>", ACM SIGSOFT Symposium on the Foundations of Software Engineering (ESEC/FSE), 2022.</li><li>• <a href="#">N. Ghorbani</a>, R. Jabbarvand, N. Salehnamadi, J. Garcia, and S. Malek, "<b>DeltaDroid: Dynamic Delivery Testing in Android</b>", ACM Trans. on Software Engineering and Methodology (TOSEM), Just Accepted, July 2022.</li><li>• J. Garcia, E. Kouroshfar, <a href="#">N. Ghorbani</a>, and S. Malek, "<b>Forecasting Architectural Decay from Evolutionary History</b>", EEE Trans. on Software Engineering (TSE), 2021.</li><li>• H. Bagheri, J. Wang, J. Aerts, <a href="#">N. Ghorbani</a>, and S. Malek, "<b>Flair: Efficient Analysis of Android Inter-Component Vulnerabilities in Response to Incremental Changes</b>", Empirical Software Engineering (EMSE), 2021.</li><li>• <a href="#">N. Ghorbani</a>, J. Garcia, S. Malek, "<b>Detection and Repair of Architectural Inconsistencies in Java</b>", International Conference on Software Engineering (ICSE), 2019.</li><li>• A. Sadeghi, R. Jabbarvand, <a href="#">N. Ghorbani</a>, H. Bagheri, S. Malek, "<b>A Temporal Permission Analysis and Enforcement Framework for Android</b>", International Conference on Software Engineering (ICSE), 2018.</li><li>• J. Garcia, M. Hammad, <a href="#">N. Ghorbani</a>, S. Malek, "<b>Automatic Generation of Inter-Component Communication Exploits for Android Applications</b>", ACM SIGSOFT Symposium on the Foundations of Software Engineering (ESEC/FSE), 2017.</li></ul>	
	<b>Applied Scientist Intern</b> Microsoft Research, Developer Division (DevDiv) Data & AI, Redmond, WA	Mar - Sep 2021
	<ul style="list-style-type: none"><li>• Researched program merge conflict resolution via neural transformers</li></ul>	
	<b>Software Engineering Research Intern</b> Fujitsu Laboratories of America, Sunnyvale, CA	Jun - Sep 2020
	<ul style="list-style-type: none"><li>• Researched mining and fixing software bugs using crowd intelligence and unsupervised machine learning</li></ul>	
	<b>Research Assistant</b> Institute for Studies in Theoretical Physics and Mathematics (IPM)	Jun 2015-Jul 2016

- 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>	<p><b>Software Engineering Intern</b> Jun - Sep 2019 Morgan Stanley, New York, NY</p> <ul style="list-style-type: none"> <li>• Designed and developed dynamic and static optimization methods in a framework for distributed and parallelized graph based calculations in Scala.</li> </ul> <p><b>Software Engineering Intern</b> Jan - Jul 2016 Pishtazan Andishe Pouya, Tehran, Iran</p> <ul style="list-style-type: none"> <li>• Designed and analyzed models for software information systems and web applications.</li> </ul> <p><b>Software Developer</b> Jan - Dec 2014 VADA Future Communications, Tehran, Iran</p> <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 Celeb. 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>• NLP: Large Language Models, Transformers, BERT, RoBERTa, and GPT-3</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 (<b>WiCyS</b>) 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>