



Mohammadhadi Alaeiyan, Ph. D.

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Data of Birth: 17 may 1990
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Education

Sabbatical leave (Visiting student)	University of Padua
Start: June 2017. Finish: April 2018.	
Ph. D. In Computer Engineering (Software)	Iran University of Science and Technology (IUST)
Thesis Title: On the Identification and Detection of Hidden Malware Behaviors	
Start: September 2014. Finish: February 2020.	
Member of Iran National Elites Foundation	
The average of the whole is 18.07 from 20.	
M. Sc. In Computer Engineering (Software)	Iran University of Science and Technology (IUST)
Thesis Title: Code Obfuscation by abstract interpretation	
Start: September 2012. Finish: September 2014.	
Ranked 1 st among graduated students in the faculty of Computer Engineering, Iran university of Science and Technology. The average of the whole is 18.18 form 20.	
B. Sc. In Computer Engineering (Software)	Iran University of Science and Technology (IUST)
Thesis Title: output approximation of functions based on input parameters	
Start: September 2008. Finish: September 2012.	
Ranked 2 nd among graduated students in the faculty of Computer Engineering, Iran university of Science and Technology. The average of the whole is 17.49 from 20.	

Publications

Journal Papers

- [J2], **Mohammadhadi Alaeiyan**, Saeed Parsa, Vinod P., Mauro Conti. Detection of Algorithmically-Generated Domains An adversarial machine learning approach. In (Elsevier) *Computer Communication*, 160, 661-673, 2020. 10.1016/j.comcom.2020.04.033, **(ISI, IF 3.066, Q1)**
- [J1], **Mohammadhadi Alaeiyan**, Saeed Parsa, Mauro Conti. Analysis and Classification of Context-based Malware Behavior. In (Elsevier) *Computer Communication*, 136, 76-90, 2019. 10.1016/j.comcom.2019.01.003, **(ISI, IF 3.066, Q1)**
- [J13], **Mohammadhadi Alaeiyan** and Amirabbas Abedi. Perfect 3-colorings of the Johnson graphs $J(4,2)$, $J(5, 2)$, $J(6, 2)$ and Petersen graph. In *ARS COMBINATORIA*, 140, 199-213, 2018. **(ISI, IF 0.247, Q3)**

[J4], Mehdi Alaeiyan, Amirabbas Abedi, **Mohammadhadi Alaeiyan**. Perfect 3-colorings of the Johnson graph $J(6, 3)$. In *Bulletin of the Iranian Mathematical Society*, 1-10, 2020. 10.1007/s41980-019-00346-9, (ISI, IF 0.390, Q3)

[J17], **Mohammadhadi Alaeiyan** and Saeed Parsa. Analysis of disassembled executable codes by abstract interpretation. In *International Journal of Nonlinear Analysis and Applications*, 10(1), 9-13, 2019. 10.22075/IJNAA.2019.4048, (ISI)

[J6], **Mohammadhadi Alaeiyan**, Ali Dehghantanha, Tooska Dargahi, Mauro Conti, Saeed Parsa. A Multi-label Fuzzy Relevance Clustering system for Malware Attack Attribution in the Edge Layer of Cyber-Physical Networks. In *ACM Transactions on Cyber-Physical Systems (TCPS)*, 4(3), 1-22, 2020. 10.1145/3351881, (ISI, Q2)

[J3], **Mohammadhadi Alaeiyan** and Hamed Karami. Perfect 2-colorings of the Platonic graphs. In *International Journal of Nonlinear Analysis and Applications*, 8(2), 29-35, 2017. (ISI)

[J7], Saeed Parsa and **Mohammadhadi Alaeiyan**. A combination of curve fitting algorithms to collect a few training samples for function approximation. In *JOURNAL OF MATHEMATICS AND COMPUTER SCIENCE-JMCS*, 17(3), 355-364, 2017. (ISI)

[J19], **Mohammadhadi Alaeiyan**. The edge-labeling and vertex-colors of K_n . In (Springer) *Mathematical Sciences*, 6(45), 2012. 10.1186/2251-7456-6-45, Online ISSN=2251-7456, Print ISSN=2008-1359. (ISI)

Conference papers

[C5], Hassan Naderi, Vinod P., Mauro Conti, Saeed Parsa, **Mohammadhadi Alaeiyan**. Malware Signature Generation using by Locality Sensitive Hashing, In Proceedings of the 2nd ISEA International Conference on Security & Privacy 2018 (ISEA ISAP 2018), MNIT, Jaipur, India, January 9-11, 2019.

[C4], **Mohammadhadi Alaeiyan**, Saeed Parsa. Automatic loop detection in the Sequence of system calls. In 2nd international conference on knowledge-based engineering and innovation, Tehran, Iran, 2015.

Persian journal papers

[J22], Seyed Ata S. Jafari, **Mohammadhadi Alaeiyan**, and Saeed Parsa. An automated approach to analysis and classification of Crypto-ransoms' family, Biannual Journal Monadi for Cyberspace Security (AFTA), 8 (2), 75-88, 2020 (۱۳۹۹).

[J9], Saeed Parsa, **Mohammadhadi Alaeiyan**. دسته بندی خانواده باج افزارهای رمزگذار با استفاده از پروندههای دام. In *پدافند الکترونیکی و سایبری - دانشگاه جامع امام حسین (ع)*. In press.

[J12], Saeed Parsa, **Mohammadhadi Alaeiyan**, SH.Sadeghnia. تحلیل و شناسایی رفتارهای انتشاری کرمها. In *پدافند الکترونیکی و شناسایی رفتارهای انتشاری کرمها*. (۱۳۹۸) غیرعامل - دانشگاه جامع امام حسین (ع), ۱۰(۱), ۱۰۹-۱۲۲, ۲۰۱۹.

[J8], Saeed Parsa, Hamidreza salehi, and **Mohammadhadi Alaeiyan**. مبهم سازی کد به منظور جلوگیری از اجرای. In *پدافند الکترونیکی و سایبری - دانشگاه جامع امام حسین (ع)*, ۶(۱), ۱-۱۶, ۲۰۱۸. نمادین (۱۳۹۷).

[J14], Saeed Parsa Hassan Saifi, and **Mohammadhadi Alaeiyan**. ارائه یک رهیافت جدید مبتنی بر گراف وابستگی بین. In *پدافند الکترونیکی و سایبری - دانشگاه جامع امام حسین (ع)*, ۴(۳), ۴۷-۶۰, ۲۰۱۶. (۱۳۹۵).

Persian conference papers

[C3], Saeed Parsa and **Mohammadhadi Alaeiyan**, تولید امضای بدافزارها با استفاده از خوشه بندی به روش درهمسازی, In International Conference on Combinatorics, Cryptography and Computation, Tehran, Iran, 2016.

[C2], Saeed Parsa and **Mohammadhadi Alaeiyan**, مبهم سازی کد با استفاده از تفسیر انتزاعی, In International Conference on Combinatorics, Cryptography and Computation, Tehran, Iran, 2016.

[C1], Hadi Salehi and **Mohammadhadi Alaeiyan**, ارائه یک فرا - معماری سامانه ای از سامانه ها مبتنی بر ارزیابی فازی, In International Conference on Combinatorics, Cryptography and Computation, Tehran, Iran, 2016.

Teaching

- Design and Analysis of Algorithms, Bs.C., 2 semester, IUST.
- C++ Programming language, Bs.C., 12 semester, IUST.
- Design Compiler, Bs.C., 1 semester, IUST.
- Boolean Algebra, Bs.C., 4 semester, IUST.
- Datamining, Bs.C., 1 semester, IUST.
- Advance software engineering, Ms.C., 2 semester, IUST.
- Reverse engineering, Ms.C., 1 semester, IUST.
- Advance Design Compiler, Ms.C. 1 semester, IUST.
- Software Fault Tolerance, Ms.C., 1 semester, Shahid Beheshti University.

Languages

- English
- Persian – Native

Expert

Programming language

- | | | |
|------------|--------|---------------------------|
| • Assembly | • Ruby | • CUDA |
| • C\C++ | • SQLX | • Java SE\EE |
| • C# | • PHP | • HTML\CSS\JavaScript\PHP |
| • Python | | |























I believe that a programmer is language free and can code by various languages.

Fields

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|---|---|
| • Security – malware analysis and detection | • Compilers and Parallelizing Compilers |
| • Security - Code Protection | • Software Testing |
| • Reverse Engineering | • Software Engineering |
| • Abstract Interpretation | • Network |
| • Software Rejuvenation | • Web Development |

Reviews,

I have reviewed at list 20 papers which were pre-review of international journals as:

 (7) IEEE Access 	 (2) IEEE Transactions on Neural Networ... 
 (1) Future Generation Computer Systems 	 (1) IEEE Transactions on Emerging Topics in C... 
 (1) IEEE Transactions on Reliability 	 (1) IEEE Transactions on Sustainable Computi... 
 (1) IET Image Processing 	 (1) IET Information Security 
 (1) KSII Transactions on Internet and In... 	 (1) PeerJ Computer Science 
 (1) The Journal of Supercomputing 	

Program Chair

- Executive conference chair of International Conference on Combinatorics, Cryptography, Computer Science and Computation (2016, 2017, 2018, 2019, 2020)
- Executive conference chair of 17th International ISC Conference on Information Security and Cryptology (ISCISC'20)

Scientific Software Developed

- LMS-RemoteVirtualClass
 - Learning Management System provided by Moodle and Adobe connect. Online: 2.181.1.226:8080 and 2.181.30.230
- Sahbad
 - Digital multimedia database based on Dspace.
- Ayannews
 - A Persian news express, site: www.ayannews.ir.
- Parsa Sandbox
 - It is a Sandbox for screen various malware and reports the malware activities.
- An obfuscator
 - This obfuscator uses Static analysis tools to collect code information and generates a more complex code than that be before.
- Static Analysis tools
 - A static analysis tool which collects information about the intervals of the variables based upon abstract interpretation.
- Parsa antivirus
 - I worked and studied in statically malware detection, and I presented a tool.
- Disassembler
 - It is a software that gets a binary file (.EXE) and disassembles it to assembly language. This disassembler has countermeasure methods against anti-disassembling techniques such as JankBytes, opaque predicate, indirect jumps.
- CFG generator

- After disassembling a binary file, this tool builds Control Flow Graph (CFG). It wrote in Java and C++.
- OllyDBG plugin
 - It is a plugin for OllyDBG that tries to solve some anti-disassembly problems.
- Live Variable
 - Finding Live Variable into the assembly codes.
- API Logger
 - A software loges each API call of every software. It works in 32bits window OS.
- Jeez
 - It is a scientific software. It is a firewall for webservers, it protects webservers from SQL injection and XSS attacks such as OWSB.
- MyLibrary
 - It Is a Business software to store, manage and reserve the books and e-books. It wrote in C#, and its database is Sqlserver.
 - It has 2 versions.
- Similar C language Compiler
 - It is a similar C language Compiler. It wrote in java and antler.
- Java to Pascal converter
 - It is a Java to Pascal Converter, It wrote in C language and Lex & Yack.
- Making TCP Connections by UDP Connections.
 - It is a software for simulating TCP connection with UDP connection.
- Register allocation
 - Graph Coloring Register allocation
 - Briggs
 - Chaitin
- Distributed System connection
 - A machine sends a job or request to another machine. It wrote in C language for Linux OS.
 - Lamport Time Stamps. JAVA
- Fp-growph
 - It is a software that implemented Fp-growph method. Fp-growph is a data mining method.
- AoutounitTester
 - It is a software that uses Nunit and approximate outputs of a function and test them.
- GraphBaseCC
 - Graph-Based Protocols. It is a Concurrency Controls for database transaction.
- Graph Mining
 - A software performs data mining with Graph.