

NAVID ABAPOUR

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EDUCATION

Honours B.Sc. in Computer Science

Supervisor: Prof. Mohammad Reza Hooshmandasl

University of Mohaghegh Ardabili¹ (UMA), Ardabil, Iran | September 2018 – July 2022

- GPA Last Two Years: 3.73/4 | Courses with My Supervisor: 3.87/4 | Cumulative (Total): 3.48/4
- Project PiouCrypt: Decentralized Lattice-based Method for Visual Symmetric Cryptography

RESEARCH INTERESTS

Privacy-preserving Computing, Distributed Systems Security, Applied Cryptography, Quantitative Information Flow

PROFESSIONAL ACTIVITIES & MEMBERSHIPS

Reviewer, Springer Journal of Cluster Computing

JCR Q2 - Impact Factor(2019): 3.4

Computability in Europe (CiE), Transfinite Computation Group

November 2021 - Present

Association for Computing Machinery (ACM), Logic and Computation Group

April 2021 - Present

Iranian Society of Cryptology in Sharif University of Technology, Student Member

February 2021 - Present

Student Association of Computer Science in UMA, Chairman

September 2020 - July 2021

PUBLICATIONS/CONFERENCE PRESENTATIONS

- N. Abapour, M. Ebadpour, PiouCrypt: Decentralized Lattice-based Method for Visual Symmetric Cryptography, Springer Journal of Designs, Codes and Cryptography², 2022 [Under Review - [PDF](#)] [[arXiv](#)]
- M. Soleymani, N. Abapour, E. Taghizadeh, S. Siadat, R. Karkehabadi, Fuzzy Rule-Based Trust Management Model for the Security of Cloud Computing, Hindawi Mathematical Problems in Engineering³, 2021 [[PDF](#)] [[Access Page](#)]
- N. Abapour, P. Ghane, A. Shafiesabet, R. Mahboub, Novel Secure Routing Using Ant Colony Optimization Algorithms and RPL Protocol in the IoT Networks, International Journal of Electrical and Computer Sciences, 2021 [[PDF](#)] [[Access Page](#)]
- N. Abapour, On the Complexity of Chaotic Pseudorandom Generators in Visual Zero-knowledge Proof & Image Encryption, Cryptography, Robustness, and Provably Secure Schemes for Female Young Researchers (CROSSFYRE) 2021 [[Video](#)] [[Slides](#)]
- Sh. Jamali, N. Abapour, R. Mahboub, Improving Theoretical-security in the IoT Networks by Utilizing the Chain Algorithm, 1st Conference on Engineering & Innovation 2021, University of Tabriz, Tabriz-Iran [[Certificate](#)] [[Draft](#)]
- N. Abapour, R. Mahboub, An Authentication Evaluation Review in Cloud Computing with Quantum and Classical Cryptography, 3rd Conference on Mechanical, Electrical and Computer Engineering 2021, Valencia-Spain [[Certificate](#)]
- N. Abapour, R. Mahboub, OEA: A Novel Symmetric Cryptography Method Based on Parity Attribute, 7th Conference on Innovation and Research in Engineering Sciences 2020, Tbilisi-Georgia (ICIRES) [[Certificate](#)]

RESEARCH EXPERIENCES

Research Intern (September 2021 – May 2022) [[Prototype](#)] [[Source Code](#)]

School of Computing and Information Systems, University of Melbourne

- Supervisor: Dr. Toby Murray, Advisor: Mohammad Mehdi Ahmadpanah
- Research Project: Developing the Advanced Information Flow Security Concurrent Separation Logic

Research and Development Consultant (January 2021 – January 2022)

Barnamenevisan Company, Tehran Province

- CEO and Director: Iman Madaeny, Microsoft Certified Trainer and Solutions Associate
- Provided solutions based on Full-stack Development for web applications and issues about software architectures

Research Assistant (August 2020 – September 2021)

Computer Emergency Response Team Laboratory, Faculty of Engineering, University of Mohaghegh Ardabili

- Principal Investigator: Prof. Shahram Jamali, Head of Department of Electrical and Computer Engineering

Chief Editor (March 2019 – May 2022)

Faculty of Mathematical Sciences, University of Mohaghegh Ardabili

- Head of the 1st national Computer Science audio journal in Iran known as [RAMA](#); Advisor: Dr. M. B. Moghimi

1. TIMES 2022 Ranking: 157th young universities in the world, and 2nd/46 among comprehensive universities in Iran

UI GreenMetric 2021 Ranking: 3rd/42 among elected universities in Iran

2. JCR: Q1, Impact Factor: 1.4

3. Scopus: Q2, Impact Factor: 1.3

HONORS & AWARDS

- The creativity and impact of research project for Honours B.Sc. degree selected as Invited Project by Elsevier to present in the Journal of Software Impacts.
- Received funding grant from the Ministry of Science, Research and Technology and University of Mohaghegh Ardabili, and appreciated for directing the First Computer Science Student Audio Journal in Iran.
- Announced as Distinguished Student, and awarded scholarship (Tuition Waiver) from Faculty of Sciences, and ranked in top 5% among all major undergraduates (ranked 2nd among 44 students) in B.Sc. Computer Science programme by achieving full score (4/4) in more than 80% of courses of Bachelor's degree.
- Selected as the outstanding Technical Team Head among all previous rounds Technical Leaders in the sixth provincial competitive programming tournament for simulating ICPC competition at Ardabil.
- Elected as the youngest fellow of Scientific-Student Journals Supervisory Committee and first undergraduate member in the history of University of Mohaghegh Ardabili.
- Elected as the youngest scientific secretary of the 12th National Festival of Student Media and Publications Secretariat in Iran, and appointed by the Ministry of Science, Research and Technology's Scientific Associations Office and the University of Mohaghegh Ardabili.
- Appreciated by Ministry of Health and Medical Education and Islamic Culture and Communication Organization for achieving the top rank among all student journals at the 12-Titr Festival national competition.
- Participated as a team named "Cool Name Pending" at the University of Mohaghegh Ardabili's Computer Engineering Scientific Association provincial competitive programming tournament, known as CCM 2019 (Code Cup of Mohaghegh) and ranked 1st in the presence of several professional teams, who were successful at Sharif University of Technology's ICPC Asia Region.
- Ranked 1st among more than 150 students at the Provincial (East Azerbaijan Province) Competition of Quran & Nahj al-Balagha, known as Quran & Etrat 2018 (Islamic Sciences), which held by Ministry of Education and Iranian National Nahj al-Balagha Foundation in Islamic Republic of Iran.

SKILLS AND MISCELLANEOUS PROJECTS

SCLOS: Secure Command-Line-based Operating System with Monolithic Kernel – In Progress

Technologies: C, Microsoft Visual Studio, .NET, C#, High Level Assembly (X#)

Secure Chaotic Logistic Congruential Pseudorandom Generator – 2021

Technologies: C, C++, MATLAB

Implementing a PCA-based Visualization Method for Iris, Seeds and Abalone Data Sets – 2020

Technologies: MATLAB, Microsoft Excel

Designing Prototype of a Flexible Data Storing/Transferring Protection Algorithm Based on Kerckhoffs's Principles Called OEA (Odd-Even Algorithm) – 2020

Technologies: GNU Compiler Collection, C++, Code Blocks, Dev-C++

Image Recognition Application Based-on Anatomy Analyze and Optimized M.L. Kit – 2019

Technologies: XML, Java, Machine Learning kit, Android Studio

Other Programming Languages: Python (Intermediate), JavaScript (Intermediate), Bash Script (Intermediate), Pascal (Familiar)

Web Application Development: Node.js (Intermediate), ASP.NET (Familiar), React Native (Intermediate), XHTML (Proficient), CSS (Proficient), Bootstrap (Intermediate), Vue.js (Familiar), jQuery (Familiar), S.E.O. (Proficient), FlexBox (Familiar), React.js (Familiar)

Software: Isabelle/HOL (Familiar), L^AT_EX (Intermediate), Git (Intermediate), VMware (Intermediate), VirtualBox (Familiar), Proteus Design Suite (Familiar), Adobe After Effects and Premiere Pro (Intermediate), Adobe Audition (Familiar), Autodesk 3ds Max (Familiar)

Databases: MongoDB (Intermediate), Microsoft SQL Server (Familiar)

Operating Systems: BlackArch (Familiar), Kali Linux (Intermediate), Scientific Linux (Familiar), Microsoft Windows 7, 10 (Proficient)

Languages: English (IELTS: 6.5/9 S:7, W:6, L:7, R:6), Azerbaijani (Native), Persian and Turkish (Fluent), Arabic (Intermediate)

TEACHING EXPERIENCES

Teaching Assistant

Department of Mathematics and Applications, Faculty of Science, University of Mohaghegh Ardabili

- Lecturer in Charge: Prof. Naser Zamani
- Course: Foundations of Algebra (Fall 2021)

Head Teaching Assistant

Department of Computer Science, Faculty of Science, University of Mohaghegh Ardabili

- Lecturer in Charge: Prof. M.R. Hooshmandasl
- Courses: Data Structure and Algorithms (Fall 2020), Data Mining (Spring 2021), Data Mining (Spring 2022)

Lead Instructor (April 2018 – December 2021)

TopLearn (Academy), Tehran Province

- List of Taught Courses (more than 9550 students along with 94% satisfaction by 5/5 rating):
 - Principles of Information Security [Videos] [Slides]
 - Server-side Vulnerabilities in Node.js [Videos]
 - Bash Scripting in Linux [Videos]
 - Foundations of Programming and Algorithm [Videos]
 - Introduction to S.E.O. [Videos]
 - Introduction to Web Application Development

SELECTED COURSES

An Introduction to Peer Review (2022)

Web of Science, Clarivate

Innovation in IoT (2021)

Shanghai Jiao Tong University - Huawei, China

Engineering and Innovation (2021)

Nordic Science Centre Association, Denmark

Web Development (2019)

Oxford Cert, United Kingdom

COURSES GAINED FULL SCORE (4/4 = +17/20)

Specialized Courses: Advanced Programming, Theory of Computation, Databases, Data Mining, Computer Systems Architecture, Logic and Set Theory, Foundations of Algebra, Linear Optimization, Mathematical Analysis, Software Development, Operating Systems, Engineering Mathematics, Differential Equations, Computer Networks, Graph Theory and Algorithms, Dynamic Optimization, Automata & Formal Languages, Theory of Programming Languages, Mathematical Software

General Courses: Foundations of Physics, Foundations of Computers and Programming, Computer Networks (Extra Course), Foundations of Entrepreneurship, Foundations of Economics, English Language, Thematic Exegesis of the Qur'an, Persian Literature, Physical Education 1, Islamic Culture and Thought 1, Physical Education 2, Family and Population Knowledge, Islamic Culture and Thought 2, Applied Islamic Ethics, History of Imamate in Shia Doctrine, History of Iran–Iraq War











VOLUNTEER WORK

Scientific Content Creator (June 2021 – March 2022)

Sharif University of Technology, Tehran Province

- Content creator in the field of Theoretical Cryptography at the Iranian Society of Cryptology at Sharif University of Technology's student branch. Scientific Secretary: [Dr. Taraneh Eghlidos](#) [My Elected Works for Instagram]

REFERENCES

- Mohammad Reza Hooshmandasl, Professor [E-mail: hooshmandasl@uma.ac.ir]  
Department of Computer Science, University of Mohaghegh Ardabili
- Shahram Jamali, Professor [E-mail: jamali@uma.ac.ir]  
Department of Electrical and Computer Engineering, University of Mohaghegh Ardabili
- Abdollah Borhanifar, Professor [E-mail: borhani@uma.ac.ir]  
Department of Mathematics and Applications, University of Mohaghegh Ardabili
- Mohammad Bagher Moghimi, Associate Professor [E-mail: moghimi@uma.ac.ir]  
Department of Mathematics and Applications, University of Mohaghegh Ardabili
- Naser Zamani, Professor [E-mail: zamanin@uma.ac.ir]  
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