

Mohammad Salar Arbabi



Personal Information

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Web Page <https://slrarbabi.github.io>

Year of Birth 1994

Fields of Interest

- Distributed Systems
- Smart Contracts
- Blockchain Technology
- Distributed Ledgers

Education

- Sept. 2019 - Aug. 2023 **Ph.D. Research Fellow**, *Department of Informatics (IFI), University of Oslo (UiO), Oslo, Norway*
- **Thesis:** Secure and Accountable Managing and Sharing of Medical Records Using Smart Contracts and Blockchain
- Sept. 2016 – Jan. 2019 **M.Sc. in Information Technology Engineering with specialization in Electronic Commerce**, *Department of Computer Engineering and Information Technology (CEIT), Amirkabir University of Technology (Tehran Polytechnic), Tehran, Iran*
- **Thesis:** Incentivized and Decentralized Delivery Network of IoT Updates Based on Ethereum Smart Contracts and Blockchain technology
- Sept. 2011 – June 2016 **B.Sc. in IT Engineering**, *Department of Computer Engineering, Sharif University of Technology, Tehran, Iran*
- **Project:** Cloud Assisted IoT-Based Social Door to Boost Student-Professor Interaction

Publications

A Survey on Blockchain for Healthcare: Challenges, Benefits, and Future Directions, *Accepted in IEEE Communications Surveys and Tutorials (IEEECOMST)*

- **Authors:** *Mohammad Salar Arbabi*, Chhagan Lal, Narasimha Raghavan Veeraragavan, Dusica Marijan, Jan F. Nygård, and Roman Vitenberg

Decentralized and Secure Delivery Network of IoT Update Files Based on Ethereum Smart Contracts and Blockchain Technology, *Accepted in CASCON 2019*

- **Authors:** *Mohammad Salar Arbabi* and Mehdi Shajari

Research Experience

- Aug. 2019 - Aug. 2023 **Ph.D. Fellow at *UiO-Blockchain* laboratory**, Oslo, Norway, Supervisor: *Professor Roman Vitenberg*
- Researching within SMARTMED project on how to exploit blockchain technology and smart contracts to enhance healthcare systems.
- Feb. 2017 - Jan. 2019 **Research Assistant in *Information Security and Electronic Commerce (ISEC)* laboratory**, Tehran, Iran, Supervisor: *Dr. Mehdi Shajari*
- Implementing the idea of decentralized architecture to update IoT devices via a blockchain-based distributed framework within Ethereum smart contracts.
- Feb. 2017 - Jan. 2019 **Researcher at *Fintech Research Center***, Tehran, Iran, Supervisor: *Dr. Mehdi Shajari*
- The AmirKabir University of Technology Technology Research Center (Fintech) was established in 2017 to serve national industry and to strengthen industry-university interactions as well as move to the third-generation university at the Department of Computer Engineering and Information Technology. The scope of my activities at Fintech was organizing workshops in the area of blockchain technology and Ethereum smart contracts.
- Jan. 2015 - July 2016 **Research Assistant in *Ambient Intelligence* laboratory**, Tehran, Iran, Supervisor: *Dr. Ali Asghar Nazari Shirehjini*
- Project: Design and implementation of a Cloud-Assisted Internet-of-Things Based Cyber-Physical Door to Boost Student-Professor Interaction. Our aim is to make a network of doors, each of which has its own identity and can provide the visitors with necessary information and services in the absence of the door's owner.
- Summer 2015 **Member of *Automated Software Engineering* laboratory**, Tehran, Iran, Supervisor: *Dr. Abbas Heydarnoori*
- Project: Bug localization and learning to rank relevant files for bug reports, using domain knowledge and git repository records
- Sept. 2014 - Jan. 2015 **Member of *Smart Appliances* laboratory**, Tehran, Iran, Supervisor: *Dr. Maziar Goudarzi*
- Project: *Padra*, a personal vehicle tracking system for Android smart phones.

Skills

Programming

Proficient	Java, Solidity
Familiar With	GO, C, C++, Python, Android Development, Objective-C, Matlab
Web/DB	HTML, CSS, SQL, JavaScript, NodeJS
Frameworks	Django, Web-3, Truffle, Drizzle, Hadoop

Methodologies

Scrum, XP

Tools

IDEs	Eclipse, IntelliJ, Android Studio, XCode
Type Writing	L^AT_EX, MS Office
Other	JIRA, Git, Asana, Trello, Adobe Photoshop, Gephi, Pajek, CPN-Tools, Weka, Magento, Ganache, Remix, CORBA, Peersim, Spread

Operating Systems

MacOS, Windows, Linux

Honors and Awards

- Feb. 2018 **Ranked 1st**, based on GPA, in M.Sc. students of Department of Computer Engineering and Information Technology of AmirKabir University of Technology (Tehran Polytechnic) with CGPA of 19.73/20
- Sept. 2016 **Ranked 6th**, among 30,000 students in the annual National University Entrance Exam and got admission to **AmirKabir University of Technology (Tehran Polytechnic)** for M.Sc. study program.
- Sept. 2011 **Ranked 67th**, among 500,000 students in the annual National University Entrance Exam and got **admission to Sharif University of Technology (SUT)** for bachelors study program. SUT is the university of choice for the top ranking students attending the nationwide universities entrance exam.

Teaching Experience

Main Instructor

- Fall 2022 **Distributed Systems Course**, University of Oslo
- Feb. 15th, 2018 **Ethereum and Smart Contract workshop**, Fintech Research Center
The first Ethereum and Smart Contract workshop to be held in Iran to teach Blockchain and Ethereum technology principals and Solidity Turing-complete contract-oriented programming language.

Teaching Assistant

Served as a teaching assistant 14 times for 12 distinctive courses at University of Oslo, Amirkabir University of Technology (Tehran Polytechnic), and Sharif University of Technology

Other

- 2015 - 2016 **Teaching Android development at Smart laboratory**

Other

- 2019 - 2022 Webmaster of Blockchain lab at UiO and SMARTMED project websites
- Summer 2015 Working as an Android developer for summer internship at ARSH company. Developing "GrapeFruit" Android smart phone application to ensure devices' security and prevent malicious software security attacks.

Languages

Persian	Native	
English	Fluent	TOEFL (Nov. 4, 2018) Total: 104/120
Norwegian	Elementary	B1 Certificate

References

- **Prof. Roman Vitenberg**, Email: romanvi@ifi.uio.no
- **Dr. Jan F. Nygård**, Email: jfn@kreftregisteret.no
- **Dr. Thiago Garrett**, Email: thiagoga@ifi.uio.no
- **Dr. Amirhosein Taherkordi**, Email: amirhost@ifi.uio.no
- **Dr. Arlindo Flavio Da Conceicao**, Email: arlindod@ifi.uio.no