

# SYED MAHDI HOSSEINI

*School of Electrical and Computer Engineering, University of Tehran, North Kargar st., Tehran, Iran.*

☎ (+98) 9330965853 ✉ smahdihosseini4@gmail.com 📷 SMahdiHosseini 🐙 SMahdiHosseini

## EDUCATION

---

### University Of Tehran

*2018 - Present*

BSc. in Computer Engineering

*GPA: 18.97/20*

Selected Courses: *Crypto Currency(20/20) - Advanced Programming(20/20) - Computer Networks(19.1/20) - Operating Systems(19.3/20) - Artificial Intelligence(19.75/20) - Engineering Probability and Statics(19.3/20) - Algorithms Design(18.7/20) - Computer Architecture(19.7/20)*

### Allame Helli Tehran Highschool

*2014-2018*

Diploma In Mathematics And Physics

*GPA: 19.77/20*

As a part of the National Organization for Development of Exceptional Talents (NODET)

## RESEARCH INTERESTS

---

- Blockchain Technology
- Computer Networks
- Graphs and Mathematics
- Machine Learning
- Distributed Systems
- Operating Systems
- Network Security
- Artificial Intelligence

## RESEARCH EXPERIENCE

---

### Research assistant on Bitcoin Lightning network

*Jan. Apr 2021 - PRESENT*

*University Of Tehran Data Lab*

*Iran, Tehran*

- Conducting a research on the evaluation of Bitcoin Lightning Network's channels lifespan.
- The research is being done under the supervision of Dr.B.Bahrak and Dr.P.Shariatpanahi.

### Intern in Multi Media Lab

*Summer 2019*

*University Of Tehran Multi Media Lab*

*Iran, Tehran*

- Tried to fetch data from HEVC encoder in order to optimize encoding process.

## PUBLICATIONS

---

### Modeling Effective Lifespan of Payment Channels

*Under Preparation*

*S.Zibakhsh, S.M.Hosseini, Prof.B.Bahrak, Prof.S.Shariatpanahi*

*Fall 2021*

In this paper, we developed a mathematical model to predict the expected effective lifespan of each channel based on the network's topology and payment size.

## TEACHING EXPERIENCE

---

### Lab's Supervisor

*Fall 2021*

*Introduction to Computing Systems and Programming*

*Dr.H.Moradi, Dr.M.Tavassolipour*

### Teaching Assistant

*Fall 2020*

*Introduction to Computing Systems and Programming*

*Dr.H.Moradi, Dr.M.R.Hashemi*

### Teaching Assistant

*Fall 2020*

*Engineering Probability and Statistics*

*Dr.B.Bahrak*

### Teaching Assistant

*Spring 2021*

*Formal Languages and Automata Theory*

*Dr.H.Hojat*

### Teaching Assistant

*Spring 2021*

*Compiler Design and Programming Languages*

*Dr.F.G.Esfahani*

## HONORS & AWARDS

---

Ranked 1 among all of Computer Engineering student, University of Tehran Spring 2019  
Ranked 2 among all of Computer Engineering student, University of Tehran 2018-present  
Silver Medal In the 30th Iranian National Olympiad in physics 2017  
Becoming a Member of Iran's National Elites Foundation(NODET) 2017-present  
Ranked Top 0.7% in Konkur(Iranian University Entrance Exam) among more than 160,000 participants 2018

## NOTABLE ACADEMIC PROJECTS

---

<b>Bitcoin Testnet With Python</b>	Cripto Currency
<i>Implementing variant type of Bitcoin transactions using Python Bitcoin library</i>	Spring 2021
<b>Multicast Over The Network</b>	Computer Networks
<i>Implementing DVMRP algorithm and IGMP protocol over a network of clients, servers and routers in C++.</i>	Spring 2021
<b>New Features for Xv6 Operating System</b>	Operating Systems
<i>Implementing new features, including new system calls, CPU scheduling, and memory management in C.</i>	Fall 2020
<b>Dots and Boxes Over Localnet</b>	Operating Systems
<i>Implementing a server that creates games of 2 to 4 players over localhost with UDP and TCP.</i>	Fall 2020
<b>Two Layer Switch Network</b>	Computer Networks
<i>Implementing a switch network and Spaning Tree algorithm over the network with ipc and multiprocess programming.</i>	Spring 2021
<b>Multithread Price Estimator</b>	Operating Systems
<i>Implementing multithreaded program to estimate price of cars in C++.</i>	Fall 2020
<b>Image Classifier</b>	Artificial Intelligence
<i>Two projects one making a NN group up, one using Tensorflow.</i>	Spring 2021
<b>Sophia Compiler</b>	Compiler Design and Programming Languages
<i>A compiler for new object oriented Language called SOPHIA.</i>	Fall 2020
<b>Mips Pipeline Processor</b>	Computer Architecture
<i>Implementing a pipeline processor using Verilog.</i>	Spring 2020

## SKILLS

---

<b>Programming</b>	Python,C/C++,SQL,JAVA,Verilog,Solidity,Shell Script,LATEX,Assembly
<b>Technology</b>	Blockchain,Ethereum,Lightning Networks,Git,Jupyter Notebook,MakeFile
<b>Operating Systems</b>	Linux(Ubuntu), Microsoft Windows

## LANGUAGES

---

English *Advanced*  
Persian *Native*

## REFERENCES

---

Available upon request