

# Soheil Zibakhsh

COMPUTER ENGINEERING · STUDENT

☎ (+98) 933-588-8339 | ✉ soheil.zibakhsh@gmail.com | 🏠 soheilzi.github.io | 📄 soheilzi | 📁 soheilzi | 📺 live:soheil.zibakhsh

## Education

### University of Tehran

Tehran, Iran

B.S. IN COMPUTER ENGINEERING

2018 - Exp. 2022

- GPA of 95.4/100
- Relevant Courses: Crypto Currency(100/100) - Advanced Programming(100/100) - Data Structures(100/100) - Operating Systems(99/100)- Probability and Statistics(100/100) - Artificial Intelligence(98/100) - Database Design(99/100) - Algorithms Design(90/100)

### Allame Helli Tehran

Tehran, Iran

DIPLOMA IN MATHEMATICS AND PHYSICS GPA : 96.6/100

2014 - 2018

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

## Research Interests

- Blockchain technology
- Algorithm design
- Theoretic computer science
- Data analysis and Data mining
- Graphs and mathematics
- Operating systems and distributed systems
- Statistics process and optimization
- Artificial intelligence

## Skills

**Programming** Python, C/C++, SQL, JAVA, Verilog, Solidity, Shellsript

**Technology** Blockchain, Ethereum, Lightning Networks, ML, Git, Jupyter Notebook, Oracle, Makefile

**Operating Systems** Linux(Ubuntu), Microsoft Windows

## Experience

### Research assistant on bitcoin lightning networks

University of Tehran Science and  
Technology Park

UNIVERSITY OF TEHRAN DATA LAB

Jan. Apr 2021 - PRESENT

- Conducting a research on the evaluation of Bitcoin Lightning Networks.
- The research is being done under the supervision of [Dr.B.Bahrak](#) and [Dr.P.Shariatpanahi](#)

### Teaching assistant in Advanced Programming

University of Tehran

UNDER SUPERVISION OF [DR.R.KHOSRAVI](#)

Jan. 2020 - PRESENT

- Responsible with designing and implementing and grading projects and assignments and exams.

### Teaching assistant in Engineering Probability and Statistics

University of Tehran

UNDER SUPERVISION OF [DR.B.BAHRK](#)

2020

- I was responsible with designing and grading homework assignments and helping student if needed

### Intern in Multi Media Lab

University of Tehran

UNDER SUPERVISION OF [DR.HASHEMI](#)

summer 2019

- Tried to develop a test bench for testing video streaming using mininet.

### Apex Developer and designer

Shazand Petro Chemical

Jan 2020 - 2021

- Developing and designing the system for load and unload using oracle apex.

## Honors & Awards

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- 2018-2021 **Ranked first at the University of Tehran**, My current GPA is 95.4. In addition, I am the first rank in all students.
- 2017 **Silver medal**, Silver Medal in the 30th Iranian National Olympiad in physics.
- 2018 **Ranked**, Top 0.6% national-wide university entrance exam
- 2017 **Becoming a member**, becoming a member of Iran's National Elites Foundation(NODET)
- 2018 **Scholarship**, Received scholarship from the University of Tehran Sponsors Foundation as an exceptional talent student.

## Remarkable Academic Projects

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### Blockchain Splitwise(<https://github.com/soheilzi/Blockchain-Splitwise>)

A PROJECT ON DESIGNING AND IMPLEMENTING ETHEREUM SMART CONTRACTS.

*Crypto Currency Course*

2021

### Sophia Compiler([https://gitlab.com/soheilzi/compiler\\_p4/-/tree/master](https://gitlab.com/soheilzi/compiler_p4/-/tree/master))

A COMPILER FOR NEW OBJECT ORIENTED LANGUAGE CALLED SOPHIA.

*Compiler design Course*

2020

### XV6 OS(<https://gitlab.com/Shayunak/os-lab5>)

MODIFIED SYSTEM CALLS, CPU SCHEDULING, MEMORY MANAGEMENT, SHORTCUTS, SYNCHRONIZATION AND CONCURRENCY..

*Operating Systems Course*

2020

### Multithread Price Estimator(<https://gitlab.com/soheilzi/os-project3>)

USING MULTITHREADING TO SPEED UP ESTIMATOR IN C++.

*Operating Systems Course*

2020

### Image Classifier(<https://github.com/soheilzi/Image-classifier>)

TWO PROJECTS ONE MAKING A NN GROUND UP, ONE USING TENSORFLOW.

*Artificial Intelligence Course*

2021

### Two Layer Switch Network([https://github.com/soheilzi/twolayer\\_switch\\_simulator](https://github.com/soheilzi/twolayer_switch_simulator))

IMPLEMENTING A SWITCH NETWORK WITH IPC AND MULTITHREAD PROGRAMMING.

*Computer Networks Course*

2021

### Dots and Boxes Over Localnet(<https://gitlab.com/soheilzi/dots-and-boxes>)

A SERVER THAT CREATES GAMES OF 2 TO 4 PLAYERS OVER LOCALHOST WITH UDP AND TCP.

*Operating Systems Course*

2020

### Mips Pipeline Processor([https://gitlab.com/soheilzi/computerarchitecture\\_project4](https://gitlab.com/soheilzi/computerarchitecture_project4))

A PIPELINE PROCESSOR WAS FULLY DESIGNED AND IMPLEMENTED USING VERILOG.

*Computer Architecture Course*

2020

## Languages

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- English** Professional working proficiency - TOEFL: 113/120 [R:30, L:30, S:29, W:24]
- Deutch** Beginner
- Persian** native

## Current Activities

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I am currently working on a research project regarding Bitcoin Lightning Networks. In this project, we have developed a new graph centrality measure, which is directed at the concept of lightning networks to predict the success rate of the network by just knowing the topology.

## References

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- Available upon request