

Soheil Zibakhsh

COMPUTER ENGINEERING · STUDENT

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Education

University of Tehran

B.SC. IN COMPUTER ENGINEERING

Tehran, Iran

2018 - Exp. 2022

- GPA : 4/4
- 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

DIPLOMA IN MATHEMATICS AND PHYSICS GPA : 4/4

Tehran, Iran

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, Shellscript

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

Operating Systems Linux(Ubuntu), Microsoft Windows

Research and Work Experience

Research assistant on Bitcoin Lightning Networks

UNIVERSITY OF TEHRAN DATA LAB

University of Tehran, ECE

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](#)

Apex Developer and designer

UNDER SHAZAND PETRO CHEMICAL

Shazand Petro Chemical

Jan 2020 - 2021

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

Intern in Multi Media Lab

UNDER SUPERVISION OF [DR.HASHEMI](#)

University of Tehran

summer 2019

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

Teaching Experience

Teaching assistant in Advanced Programming

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

University of Tehran

Jan. 2020 - PRESENT

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

Teaching assistant in Database and systems

UNDER SUPERVISION OF [DR.A.SHAKERY](#)

University of Tehran

2021- PRESENT

- Responsible with designing and grading homework assignments and helping students if needed

Teaching assistant in Engineering Probability and Statistics

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

University of Tehran

2020

- Responsible with designing and grading homework assignments and helping student if needed.

Teaching assistant in Introduction to Computing Systems and Programming

UNDER SUPERVISION OF [DR.H.MORADI](#)

University of Tehran

2021

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

Publications

Modeling Effective Lifespan of Payment Channels

SOHEIL ZIBAKHSH, MAHDI HOSSEINI, PROF.BEHRAN BAHRAK, PROF.POOYA SHARIATPANAH

Under Preparation

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.

Scalable Decentralized Systems : A Survey

SOHEIL ZIBAKHSH

Under Preparation

2021

Scalable decentralized system that includes both the cutting-edge consensus algorithms (the proof of stake or delegated proof of stake) and the layer-2 technologies

Honors & Awards

2018-2021 **Ranked first at the University of Tehran**, among all Computer Engineering students.

2017 **Silver medal**, in the 30th Iranian National Olympiad in physics.

2018 **Ranked**, Top 0.6% national-wide university entrance exam

2017 **Becoming a member**, of Iran's National Elites Foundation(NODET)

2018 **Scholarship**, Received from the University of Tehran Sponsors Foundation as an exceptional talent student.

Remarkable Academic Projects

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)

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)

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 OVER UDP AND TCP.

Operating Systems Course

2020

Mips Pipeline Processor(https://gitlab.com/soheilzi/computerarchitecture_project4)

A PIPELINE PROCESSOR WAS FULLY DESIGNED AND IMPLEMENTED USING VERILOG.

Computer Architecture Course

2020

Languages

English Advanced - TOEFL: 113/120 [R:30, L:30, S:29, W:24]

Deutsch Beginner

Persian native

References

- Available upon request