

Shayan Hamidi Dehshali

COMPUTER ENGINEERING · STUDENT

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Education

University of Tehran

BSC. IN COMPUTER ENGINEERING

Tehran, Iran

2018 - Present

- GPA : 4/4

- Relevant Courses:

Artificial Intelligence(100/100)

Operating systems(100/100)

Computer Networks(88/100)

Crypto Currencies(98/100)

Database Design(100/100)

Network Security(95/100)

Distributed Systems(95/100)

Software Testing(97/100)

Advanced Programming(100/100)

Allame Helli Tehran

DIPLOMA IN MATHEMATICS AND PHYSICS

Tehran, Iran

2014 - 2018

- GPA: 4/4

- An active participant of the Annual Helli Seminars

- A member of National Physics Olympiad team

Research Interests

- Distributed Systems
- Network Security
- Operating Systems
- Blockchain Technology and Cryptography
- IOT and Cyber-physical systems
- Software Design

Skills

Programming

C/C++, Java, Python, C#, \LaTeX , ShellScript, Solidity, Kotlin, Erlang, Verilog, R, Go, HTML/CSS

Paradigms

Relational Database Systems, NoSQL Database Systems, xUnit-based Testing, BDD and UI Testing, Dependency Injection, Git(Version Control), CI/CD, Scrum tools, Web-server, REST-API Design

Tools

Jupyter Notebook, Android Studio, Remix, IntelliJ IDEA, ModelSim, Xilinx Vivado, Quartus

Operating Systems

Ubuntu Linux, Kali Linux, Microsoft Windows

Research and Work Experience

Research assistant on Blockchain

UNIVERSITY OF TEHRAN DATA LAB

University of Tehran, ECE

Dec 2021 - Present

- Conducting research on the classification of bitcoin addresses and the limit on the throughput of the Lightning Network
- The research is being done under the supervision of [Dr.B.Bahrak](#) and [Dr.P.Shariatpanahi](#)

Full stack developer

[DATASERVICES](#), PART-TIME

Startup

Oct 2020 - Dec 2021

- I have been part of a vanguard startup working on a data sharing platform. We took the privacy and GDPR to the heart of the design while incentivizing each individual's contribution favoring a platform embracing humanistic information economy.

Teaching Assistance Experience

Teaching assistant in Operating Systems

UNDER SUPERVISION OF [DR.KARGAHI](#)

University of Tehran

Oct. 2021 - Dec. 2021

Teaching assistant in Crypto Currencies

UNDER SUPERVISION OF [DR.P.SHARIATPANAHI](#)

University of Tehran

Feb. 2022 - July 2022

Teaching assistant in Compiler and Programming Languages Design

UNDER SUPERVISION OF [DR.GHASEMI](#)

University of Tehran

Oct. 2021 - Dec. 2021

Teaching assistant in Formal Languages and Automata

UNDER SUPERVISION OF [DR.HOJJAT](#)

University of Tehran

Jan. 2021 - Jun. 2021

Teaching assistant in Introduction to Computer Systems Programming

UNDER SUPERVISION OF [DR.MORADI](#)

University of Tehran

Oct. 2020 - Dec. 2021

Extracurricular Activity

- Lean Startup Workshop
- Scaled Agile Framework(SAFe) Workshop
- \LaTeX Workshop
- Design Thinking Workshop

Publications

Throughput Limitation of the Off-chain Payment Network[\[eprint\]](#)

Submitted-Under Review

SHAYAN HAMIDI DEHSHALI, SEYED MAHDI HOSSEINI, SOHEIL ZIBAKSH SHABGAHI, BEHNAMEH BAHRAK

2022

In this paper, we propose a mathematical model to formulate limitation on the throughput of an off-chain payment network.

Behavioral classification of Bitcoin addresses based on transaction history[\[pre-print\]](#)

Under Preparation

SHAYAN HAMIDI DEHSHALI, BEHNAMEH BAHRAK

2022

In this paper, we used ML methods to classify bitcoin addresses based on their transaction history extracted features in illegal or simple roles.

Honors & Awards

- | | | |
|------|---|-----------------------------|
| 2021 | Ranked 13th in National Bachelor's Olympiad , among all Computer Engineering students of the country | <i>Sanjesh org.</i> |
| 2022 | Ranked third in my major , among all Computer Engineering students of the university | <i>University of Tehran</i> |
| 2018 | Ranked 108th in Iran National Konkur , top 0.01% nation-wide university entrance exam | <i>Sanjesh org.</i> |
| 2017 | Qualified for second round of National Physics Olympiad , among all participants of the country | <i>Olympiad org.</i> |

Remarkable Academic Projects

Bluetooth ECG plotter([On Github](#))

CPS

PLOTTING ECG FROM EDGE SENSOR DATA ON A CENTRALIZED SYSTEM.. IMPLEMENTED ON *Arduino*.

May 2022

EVM: Blockchain-Splitwise([On Github](#))

Crypto-currencies course

IMPLEMENTED A DEBT SYSTEM WITH SMART CONTRACTS BY SOLIDITY OVER GANACHE VIRTUAL ETHEREUM CHAIN SIMULATOR.

June 2021

XV6: Operating System([On GitLab](#))

Operating Systems course

A MODIFICATION OF XV6 OPERATING SYSTEM WITH SO MANY FEATURES ADDED.

November 2020

CA-Crypto: Crypto-Currency Project([On Github](#))

Crypto-currencies course

I TRIED TO MINE BITCOIN BLOCK, GENERATE DIFFERENT KINDS OF ADDRESSES, AND MAKE P2PKH,P2SH,P2WPKH,SEGWIT TRANSACTIONS ALL ON THE TESTNET. IMPLEMENTED BY PYTHON.

May 2021

AI: Image Classifier([On Github](#))

Artificial Intelligence course

CLASSIFIED IMAGES OF PERSIAN NUMBERS BY A MANUALLY-IMPLEMENTED NEURAL NETWORK MODEL. DEVELOPED BY PYTHON.

June 2022

Languages

- | | |
|----------------|--|
| English | Advanced - TOEFL: 106/120 [R:30, L:29, S:22, W:25] |
| German | Elementary |
| Persian | Native |

References

- Available upon request