

Amir Ali Vahidi Noghani

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EDUCATION

Sep 2020 - present Bachelor's Degree at **University of Tehran** (GPA: 3.67/4.0)
Sep 2017 - June 2020 High School Diploma in Mathematics at **Shahid Hashemi Nezhad 1(National Organization for Development of Exceptional Talents)** (GPA: 19.41/20)

RESEARCH INTERESTS

- Blockchain & Cryptography
- Computer Security
- Data Science

COURSES

Foundations of Data Science	18.4/20
Computer Networks	17.1/20
Algorithm Design	18.5/20

WORK EXPERIENCE

Intern - Hamrahe-Aval (Mobile Communication Company of Iran, MCI) Summer 2023

As an intern at Hamrahe-Aval, I had the privilege of gaining valuable insights into the dynamic realm of mobile communications, particularly focusing on GSM technologies with a foundational understanding of 3G and 4G. My primary focus within the company was on Intrusion Detection Systems (IDS).

PROJECTS

XV6-Modified

[Link to Project](#)

A group project written in c and c++.This project is a modified xv6 operating system with several extra features. xv6 is a re-implementation of Dennis Ritchie's and Ken Thompson's Unix Version 6 (v6).

Congestion Control Mechanisms Simulation in Computer Networks

[Link to Project](#)

Designed, executed, and analyzed simulations for TCP Reno, New Reno, and BBR congestion control algorithms in computer networks. Collected and compared performance metrics, such as throughput and latency, under diverse network conditions. The project showcased my expertise in optimizing network performance and data-driven decision-making.

Transaction in Bitcoin Testnet Network Using Python

[Link to Project](#)

This project involves generating a dedicated testnet Bitcoin address and crafting transactions using 'python-bitcoinlib' and a testnet faucet. It includes creating single-input, dual-output transactions with a P2PKH script, executing a multisig script transaction with three addresses, and exploring a more complex transaction scenario. The project concludes by mining a block on the testnet network, showcasing practical expertise in Bitcoin testnet operations, including address generation, transaction crafting, multisig scripting, and testnet mining.

ERC20 Token Deployment on Ethereum Testnet

[Link to Project](#)

This project involves developing and deploying an ERC20 token on the Ethereum testnet using Solidity. It features ERC20 compliance, controlled minting with a global cooldown mechanism, and cryptographic proof for secure token issuance.

TEACHING ASSISTANCE EXPERIENCE

Introduction to Computing Systems and Programming University of Tehran
Under Supervision of Dr.Hashemi and Dr.Moradi Oct 2022 - Spring 2023

Advanced Programming University of Tehran
Under Supervision of Dr.Ramtin Khosravi Sep 2023 - Present

Computer Networks University of Tehran
Under Supervision of Dr.Khonsari Sep 2023 - Present

PROFESSIONAL EXPERIENCE

Blockchain Course Instructor, ACM Summer of Code 2024

[More Info](#)

- Led participants through key topics including symmetric and asymmetric cryptography, Bitcoin mechanisms, and Ethereum token development.
- Guided students in applying learned concepts to develop and deploy tokens on the Ethereum blockchain.

SKILLS

Programming	Proficient: Python, C/C++. Intermediate: SQL,Solidity
Tools and Technologies	Git (Version control system), Docker, ZMQ, Jupyter Notebook, VS Code, Makefile, Familiar with Redis and Kafka
Paradigms	Relational Database Systems, html & css
Operating Systems	Linux, Microsoft Windows

HONORS & AWARDS

2020	Ranked 140th in Iran's National University Entrance Exam (among top 0.1 percent of participants)
June 2023 - August 2024	Chief Elected Official of Computer Engineering Student Association of Tehran University (also known as Student Branch of ACM) (visit ut-acm.ir for more info)

VOLUNTEERING & LEADERSHIP

- Led the 'Summer of Code' internship program at the University of Tehran, mentoring over 80 participants in computer science.
- Organized a successful welcome event for new Electrical and Computer Engineering students, attracting over 200 attendees.
- Hosted a 'Counter-Strike' computer game competition within the department, engaging 40 enthusiastic students.
- Coordinated an Intercollegiate Programming Contest (ICPC) at the University of Tehran, drawing over 200 students from Computer Science and Mathematics.

- Established partnerships with leading technology companies, securing sponsorships for ACM events.

LANGUAGES

English
Persian Native

HOBBIES

Volleyball
Podcasts
Watching Football