

Zahra Yazdani Tazeh Kand

COMPUTER ENGINEERING · BSC STUDENT

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Education

University of Tehran

B.SC. IN COMPUTER ENGINEERING

- GPA: 17.46/20 (3.66/4.0)

Tehran, Iran

Sept. 2018 - PRESENT

Roshangar High School

DIPLOMA OF PHYSICS AND MATHEMATICS

- GPA: 19.93/20

Tehran, Iran

2014 - 2018

Research Interests

Computer Networks Information and Communications Technologies for Development (ICTD) HCI Software Engineering

Publications

Tenzin Samten Ukyab, Zhihong Luo, Silvery Fu, Demetrius Davis, Zahra Yazdani, Shaddi Hasan, Hannaneh Barahouei Pasandi, Sylvia Ratnasamy, Scott Shenker. **"Making Cellular Networks More Efficient By Roaming In-Place"** Hot-Mobile 2023 – under submission

Teaching Experiences

University of Tehran

UNDERGRADUATE TEACHING ASSISTANT IN FORMAL LANGUAGES AND AUTOMATA

- Designed two assignments and grading.

Tehran, Iran

Sept. 2021 - Jan. 2022

UNDERGRADUATE TEACHING ASSISTANT IN ADVANCED PROGRAMMING

- Responsible for proposing the initial idea, designing, and implementing projects as a group of TAs and in-person or online evaluation and grading sessions.
- Assigned to total number of twelve projects in four semesters.

Feb. 2020 - Jan. 2022

Research Experiences

Virginia Polytechnic Institute and State University, SPIN Lab

UNDERGRADUATE RESEARCH ASSISTANT

- **Under the Supervision of Dr. Shaddi Hasan**
- **Feb. 2022 - present** Currently working on a project called "AvA". The ultimate goal of AvA is to provide more stable and better performing cellular connections in future cellular networks.
- **July 2021 - Jan. 2022** Designed tools for collecting data on California power outages for evaluating wildfire's impacts on mobile network resilience in future works. The system enables us to capture near-real-time outage data from the two largest electric utilities in the state.

Blacksburg, VA, USA

July 2022 - PRESENT

Coursework

Introduction to Computing Systems and Programming (18.25) Advanced Programming (20) Differential Equations (19)

Engineering Probability and Statistics (17) Data Structures (19.7) Computer Architecture (20) Algorithm Design (16.9)

Operating System (17.5) Compiler design and programming languages (18) Systems Analysis and Design (18.5)

Artificial Intelligence (19) Computer Networks (17.3) Database Design (17.1) Software Engineering (18.4)

Introduction to Software Testing (18.8) Internet Engineering (17.7)

Honors & Awards

2018 **Ranked among the top 0.9% of students**, Iranian University Entrance Exam

Tehran, Iran

Notable Course Projects

2022	Android Auto , Launching an open-source version of android auto called “openauto” and adding features such as fixing memory leakage, and making it minimal with required features.	C++
2022	Surface Scanner , Building an android application to scan a surface using phone’s sensors such as accelerometer and gyroscope.	Java
2022	IEMDB , Implementing a movie web application from scratch using Spring Framework (for backend), JavaScript(React for frontend), MySQL, Docker, and Kubernetes.	Java
2021	Project Management , Planning different aspects of a system for tracking students’ requests, such as time management using Gantt chart, risk management, and cost managements, also planning it using Agile methods.	
2021	OAuth , Implementing OAuth for a web application.	Python
2021	Testing Methods , Implementing different testing methodologies such as Junit, test doubles, graph-based testing, logic-based testing, and UI testing.	Java
2021	Image Classification , Designing and implementing a neural network for image classification using Keras and TensorFlow.	Python
2021	Price Prediction Using Advanced Regression Techniques , Implementing a price prediction system for cars using models such as KNN, Decision Tree, and random forest.	Python
2021	Network Routing , Implementing a virtual network routing protocol among connected nodes using Distance Vector Multicast Routing Protocol (DVMRP).	C++
2021	Network Switch , Implementing a layer two network switch sharing data between different systems using Ethernet frames and Spanning Tree algorithm.	C++
2021	FTP Server , Implementing a FTP server sharing data with a client using socket programming.	C++
2021	XV6 , Working with the XV6 kernel and adding some features such as system calls, different scheduling, user programs, and synchronization.	C
2020	Sophia Compiler , Designing and implementing a compiler for a language called ”Sophia” given the language documentations from scratch.	Java, ANTLR4
2020	MIPS Processor , Implementing MIPS Processor in three phases: single-cycle, single-cycle with pipeline, and multi-cycle.	VerilogHDL
2019	Netflix , Implementing a simple form of Netflix with a basic recommender system using object oriented programming and creating a simple web application version of it.	C++, HTML

Skills

Programming	Python, C, C++, Java, VerilogHDL, HTML, CSS, SQL Familiar with Assembly, \LaTeX
Technologies	Git, Maven, Makefile
Web Development	React, Spring, TomCat
Machine Learning	Pandas, NumPy, Scikit-learn, Matplotlib, TensorFlow, Keras
Frameworks	JUnit, Docker Familiar with Kubernetes
Hardware Simulators	Familiar with ModelSim, Quartus
Software Engineering	Object-oriented Programming, Software Testing Methodologies, Agile, Scrum
Operating Systems	MacOS, Linux
Other	Android Development Persian: Native proficiency
Languages	English: Professional working proficiency - TOEFL Score: 108/120 (Advanced) Arabic: Elementary proficiency