

Zahra Yazdani Tazeh Kand

COMPUTER SCIENCE · PHD STUDENT

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Education

Georgia Institute of Technology

PH.D. IN COMPUTER SCIENCE

- Advised by Alberto Dainotti and Cecilia Testart

Atlanta, GA, USA

Aug. 2023 - PRESENT

University of Tehran

B.SC. IN COMPUTER ENGINEERING

- GPA: 17.63/20 (3.68/4.0)

Tehran, Iran

Sept. 2018 - Feb. 2023

Roshangar High School

DIPLOMA OF PHYSICS AND MATHEMATICS

- GPA: 19.93/20

Tehran, Iran

2014 - 2018

Research Interests

Computer Networks Internet Measurements ICTD Security and Privacy HCI

Research Experiences

Georgia Institute of Technology

GRADUATE RESEARCH ASSISTANT

- Researcher in the Internet Intelligence Research Lab

Atlanta, GA, USA

Aug. 2023 - PRESENT

Virginia Polytechnic Institute and State University, SPIN Lab

UNDERGRADUATE RESEARCH ASSISTANT

- Under the Supervision of Prof. Shaddi Hasan
- Feb. 2022 - May 2023 Worked 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 2021 - May 2023

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

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

2023	Georgia Institute of Technology President's Fellowship , Additional stipend of \$5,500 per academic year offered to a select number of highly qualified doctoral students across the nation.	Atlanta, GA, USA
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: Full professional proficiency - TOEFL Score: 108/120 (Advanced) Arabic: Elementary proficiency