1996.6.16
Stony Brook, NY
She/Her

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Linkedin

Samin Shapour

Education

Stony Brook University, Stony Brook, New York
M.S., Computer Science 2023 - Present
GPA 3.47 / 4

University of Tehran, Tehran, Iran
M.Sc., Algorithms and Computations 2019 - 2022
Thesis: An Integrated Model of Neural Network and Network Science to Predict the Outbreak of COVID-19
Advisor: Professor Ali Kamandi
GPA 3.77 / 4

Razi University, Kermanshah, Iran
B.S., Computer Engineering-Software 2014-2019
Thesis: An android application to learn English for children under the age of 10
Advisor : Professor Mahmoud Ahmadi

Research Interests

- Natural Language Processing
- Data Science / Data Analysis
- Artificial Intelligence
- Graph Theory

Publications

Shapour,S. Kamandi, A.(2021): An aspect-oriented methodology for assessment of e-readiness. National Conference on Advances in Enterprise Architecture(NCAEA) 2021 Conference held by Ferdowsi University of Mashhad(Accepted)

Academic Experiences

- Research Assistant Fall 2024
  Instructor: Professor Ali Khosronejad, Stony Brook University

- Teaching Assistant of Analysis of Algorithms Spring 2024
  Instructor: Professor Rezaul Chawdhury, Stony Brook University

- Teaching Assistant of Analysis of Algorithms Fall 2023
  Instructor: Professor Dominik Kempa, Stony Brook University

- Teaching Assistant of Theory of Computation Spring 2023

Instructor: Professor Anita Wasilewska, Stony Brook University

- Teaching Assistant of Distributed Systems — Fall 2020 - Present
  Instructor: Professor Ali Kamandi, University of Tehran, Iran
- Teaching Assistant of Advanced Algorithms — Fall 2021 - Present
  Instructor: Professor Ali Moeini, University of Tehran, Iran
- Teaching Assistant of Network Science — Spring 2021
  Instructor: Professor Ali Kamandi, University of Tehran, Iran
- Teaching Assistant of Randomized Algorithms — Spring 2021
  Instructor: Professor Ali Moieni, University of Tehran, Iran

Work Experience and Projects

Research Assistant — Spring 2024 - Fall 2024

Supervisor: Professors Ritwik Banerjee, Ali Khosronejad Stony Brook University, New York

Graduate Student Assistant — Summer 2023

Supervisor: Kathy Germana, Stony Brook University, New York

Data Science Academy Coordinator — 2021-present

Advisor: Professor Ali Kamandi, University of Tehran, Tehran, Iran
Managed and scheduled the data science academy courses held by the University of Tehran

Data Analyst — 2019-2020

Advisor: Professor Ali Kamandi, Tehran Municipality, Tehran, Iran
Cleaned and improved existing datasets by testing the validity, accuracy, and consistency of new and existing data. Moreover, I helped maintain the data integrity of the database and consistency by defining a naming standard for the data warehouse.

Data Gathering

- Advisor: Professor Ali Kamandi, Cereal Research Institute Center — Summer 2021
  Collected a required training dataset for assessing wheat's protein level using a deep neural network.
- Advisor: Professor Farhad Mardukhi, National Information Technology Organization, Razi University, Kermanshah, Iran — Fall 2018
  Collected demographic data for the development of a reference model for provincial and municipal budget allocation. And also compiled current business intelligence data into reports and presentations.

Freelance Translator — 2016-present

Translated computer-specialized documents from English to Persian and vice versa, i.e., the 10th chapter of networkscience-book by Albert Barabasi, available at networksciencebook.com.

Samin Shapour

Computer Skills

Programming Language
Python, C++, SQL, TLA+
Operation Systems
Linux, Windows, Mac OS
Edit, Simulating and Development Tools
Microsoft SQL server, Microsoft Quality Service, LaTeX, Office, Visio, GleamViz, NetLogo

Language

- Persian: Native
- Turkish: Fluent
- English: TOEFL iBT overall: 110, Reading 29, Listening 29, Speaking 25, Writing 27

Selected Projects

(Grad.) Independent Study : Contradiction Detection — Spring 2024 - Summer 2024
Advisor: Professor Ritwik Banerjee, Stony Brook University

(Grad.) Data Science : Let The Music Heal Your Psyche — Fall 2023
Advisor: Professor Steven Skiena, Stony Brook University

(Grad.) Big Data : Analysis of New York State Educational Data — Spring 2023
Advisor: Professor Andrew Schwartz, Stony Brook University

(Grad.) Machine Learning: Sentiment Analysis on Tweeter Dataset using Machine Learning — Fall 2020
Advisor: Professor Sayeh Mirzaei, University of Tehran

(Grad.) Distributed Systems: Implementing a Blockchain Network using Hyperledger Fabric — Fall 2019
Advisor : Professor Ali Kamandi, University of Tehran

Reference

Prof. Dominik Kempa, Assistant Professor, Dept. of Computer Science, Stony Brook University
`kempa@cs.stonybrook.edu`
Prof. Anita Wasilewska, Assistant Professor, Dept. of Computer Science, Stony Brook University
`anita@cs.stonybrook.edu`
Prof. Ali Moieni, Professor, Dept. of Algorithms and Computation, University of Tehran
`moeini@ut.ac.ir`
Prof. Dara Moazzami, Professor, Dept. of Algorithms and Computation, University of Tehran
`dmoazzami@ut.ac.ir`

Samin Shapour Miandouab

"*Call Samin; she will indeed find a way to fix it*," said my school's officials every time their computers stopped functioning. With this unofficial role assigned to me, choosing software engineering as my field of study was a natural choice for me. Successfully passing the entrance exam, I got admitted to Mathematics and Physics major at the best national high school, called the National Organization for Development of Exceptional Talents, and secured a GPA of 4.

Years went by, and it was time for me to take the national entrance exam for my bachelor's degree. I got admitted into the Bachelor of Software Engineering program at one of the best universities in the western part of Iran, Razi University. As my bachelor's was coming to an end, and I had to take my final project, I decided to broaden my horizon of experience in programming by building a mobile application to teach the basics of the English language to children under the age of ten.

Eventually, after graduating with my bachelor's degree, I took the competitive national entrance exam for my Master's degree. I found my way into Iran's best university, the University of Tehran, and its most promising major, Algorithms and Computation. It was during my Master's that I was awarded the opportunity to be a TA for courses such as Advanced Algorithms, Distributed Systems, Network Science, and Randomized Algorithms.

While at Tehran University, I discovered how much courses like machine learning and network science would bring the enthusiastic researcher out of me. Therefore, as my Master's was drawing to a close, I decided that this was the best time for me to integrate my two most beloved fields of science and selected 'An Integrated Model of Neural Network and Network Science to Predict the Outbreak of COVID-19' as my Master's thesis. This was a challenging task as I had to refine the existing SIR epidemiology model, which did not yield accurate results, to obtain more realistic results. However, with determination and hard work, I overcame these challenges and produced a thesis that I am proud of.

Ultimately, all the hard work paid off, and I graduated with my Master's with a high GPA of 3.77. This period of my life not only gave me the chance to get a deeper understanding of Computer Science but also brought out a version of me who was ready to face real-world problems .

Thanks to my advisor, Professor Ali Kamandi, who played a crucial role in my academic journey, I got accepted to the Data Integration and Data Quality project at Tehran Municipality, where I gained a lot of experience in addressing actual dirty data. Following those experiences I gained, I gave voluntary lectures on handling dirty data using Microsoft Quality Service (DQS) in several conferences and courses held by the University of Tehran. It is worth mentioning that the fruit of

my work in Tehran Municipality was a national conference paper called "An aspect-oriented methodology for e-readiness assessment." It was amazing how these extracurricular activities turned me from an inexperienced student into a more organized, flexible, and curious one.

I knew I needed a precise plan to pursue my ambition, which is yet to be achieved. First and foremost, undeniably, I needed to determine where my passion lies the most and whether I was willing to deal with it for possibly the rest of my life .

As the next step, I was accepted to the reputable Computer Science Graduate Program of Stony Brook University, where I was TA for three semesters for Analysis of Algorithms and Theory of Computation courses. This gave me an invaluable first-hand experience interacting with students in a multicultural environment and the American education system. While at Stony Brook University, I passed Ph.D. qualifier courses such as Machine Learning, Visualization, Big Data, and Computational Biology, which further broadened my knowledge horizon. I also had the chance to do extensive research on Contradiction Detection on medical datasets under the supervision of Professor Ritwik Banerjee and trained LLM models such as Bert, PubMedBert, and Roberta for that use.

Furthermore, I am currently completing my Master's project in Distributed Systems under the supervision of Professor Mohammad Javad Amiri. During this last semester at Stony Brook, I am a research assistant in the Hydraulic Lab, where I am training the Unet model to predict the wake and flow properties of wind farms. My contribution to this lab as a Computer Science researcher includes image processing, and I am honored to do this research under the supervision of Professor Ali Khosronejad and Dr. Christian Santoni.

Now, I am deeply sure that I can not just give up on irrigating this thirsty plant of teaching and researching that is growing inside me and that the only way to see this passion full-blown is to pursue my Ph.D. studies.

I am well aware that reaching this goal demands a considerable amount of weariless effort, and I am ready to embark on this chapter with a sense of accomplishment and readiness for the challenges ahead. For that reason, I chose Columbia University because of its reputable Computer Science Department. I hope to deliver my capabilities in fields such as Artificial Intelligence large and am open to discovering more interdisciplinary areas of data science.

I would be more than glad to provide you with further information if needed. I look forward to your pleasant, positive response so that I can contribute to the academic community and make a meaningful impact.