

Reza Shami Tanha

PERSONAL INFORMATION

Surname	Shami Tanha
Name	Reza
Date and Place of Birth	February 25, 1996; Zanjan, Iran
Nationality	Iranian
Email	reza.sh.tanha.study@gmail.com
Address	Room 123, Department of Computer Science and IT, Institute for Advanced Studies in Basic Sciences (IASBS), 444 Prof. Yousef Sobouti Blvd., Zanjan 45137-66731, Iran
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Skype ID	reza.sht

SUMMARY

I am a Master's graduate of computer science from the Institute for Advanced Studies in Basic Sciences (IASBS). I'm researching employing machine learning tools, especially graph neural networks, in bioinformatics problems. I am also researching finding a way for cooperative teamwork among robotic agents and formulating physical phenomena as mathematical models to prepare an acting environment for agents.

EDUCATION

Institute for Advanced Studies in Basic Sciences (IASBS).	Zanjan, Iran
MSc in Artificial Intelligence, GPA: 16.72/20.00	2019–2023
– Thesis: “Firefighting by Autonomous UAVs Network using Deep Reinforcement Learning”	
– Supervisors: Dr. Mohsen Afsharchi, Dr. Mohsen Hooshmand	
Institute for Advanced Studies in Basic Sciences (IASBS).	Zanjan, Iran
B.S. in Information Technology (IT), GPA: 15.94/20.00	2014–2018
– Thesis: “Designing and Implementing A Mobile Phone System to Remind when to Take Medicine”	
– Supervisor: Dr. Ebrahim Ansari	

RESEARCH INTERESTS

- Machine Learning
- Reinforcement Learning
- Multi Agent Reinforcement Learning
- Graph Neural Networks

PUBLICATIONS

- [1] R. Shami Tanha, M. Sadighian, A. Zabihian, M. Hooshmand, and M. Afsharchi, “MAD-TI: Meta-path aggregated-graph attention network for drug target interaction prediction”, presented at the 2023 31st International Conference on Electrical Engineering (ICEE), 2023.
- [2] A. Zabihian, F. Z. Sayyad, S. M. Hashemi, R. Shami Tanha, M. Hooshmand, and S. Gharaghani, “DEDTI vs IEDTI: Efficient and predictive models of drug-target interactions”, *Scientific Reports*, vol. 13, pp. 1–18, 2023. [Online]. Available: <https://doi.org/10.1038/s41598-023-36438-0>.

RELEVANT GRADUATE COURSES PASSED

- **Machine Learning**, 2020
 - Bishop, Christopher M. (2006). “Pattern recognition and machine learning”. New York :Springer,
- **Advanced Data Mining**, 2020
 - Han, J., Kamber, M. & Pei, J. (2012). “Data mining concepts and techniques”, third edition Morgan
- **Deep Learning**, 2020
 - Bengio, Y. (2016). “Deep Learning”. MIT Press.
- **Advanced Artificial Intelligence**, 2019
 - Russell S. J. & Norvig P. (2010). “Artificial intelligence : a modern approach (3rd ed.)”. Pearson.
- **Multi Agent Systems**, 2020
 - Wooldridge, M. (2009). “An introduction to multiagent systems”. John wiley & sons.

EXPERIENCES

- | | |
|---|--|
| <ul style="list-style-type: none">• Research Assistant at IASBS, Departemant of Computer Sciences and IT
<i>Supervisor: Dr. Mohsen Hooshmand</i>• Freelancer Website Developer
<i>Develop and maintain an online questionnaire website, online.iran.liara.run</i> | <p>May 2023 - August 2023</p> <p>January 2023 - April 2023</p> |
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TEACHING

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|--|---|
| <ul style="list-style-type: none">• Teaching Assistant at IASBS, Departemant of Computer Sciences and IT
<i>Course name: Reinforcement Learning, Teacher: Dr. Mohsen Hooshmand</i>• Teaching Assistant at IASBS, Departemant of Computer Sciences and IT
<i>Course name: Advanced Data Mining, Teacher: Dr. Zahra Narimani</i>• Teaching Assistant at IASBS, Departemant of Computer Sciences and IT
<i>Course name: Multi Agent Systems, Teacher: Dr. Mohsen Afsharchi</i>• Teaching Assistant at IASBS, Departemant of Computer Sciences and IT
<i>Course name: Advanced Programming, Teacher: Dr. Ebrahim Ansari</i>• Teaching Assistant at IASBS, Departemant of Computer Sciences and IT
<i>Course name: Data Structures, Teacher: Dr. Mehdi Khosravian</i>• Teaching Assistant at IASBS, Departemant of Computer Sciences and IT
<i>Course name: Basic Programming, Teacher: Dr. Ebrahim Ansari</i> | <p>Fall 2022</p> <p>Winter 2022</p> <p>Winter 2021</p> <p>Spring 2017</p> <p>Winter 2016</p> <p>Fall 2015</p> |
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COMPUTER SKILLS

Programming languages:

- C++ (expert)
- Python (expert)
- JavaScript (experienced)
- Java (good knowledge)

Back-End:

- Node.JS (experienced)
- Express.JS (experienced)
- PHP (experienced)
- XAMP (experienced)

Databases:

- MongoDB (good knowledge)
- MySQL (experienced)

Operation Systems:

- Linux
- Windows

Machine Learning and Deep Learning:

- PyTorch, TensorFlow
- NumPy, SciPy, Keras, Pandas
- Matplotlib

Front-End:

- Html, CSS, JavaScript (experienced)
- Bootstrap (experienced)
- jQuery (experienced)

Scientific software:

- MATLAB (experienced)

Others:

- L^AT_EX (good knowledge)
- Heroku (good knowledge)
- Git (experienced)
- Express JS and mongoose libraries in Node.JS

LANGUAGE SKILLS

- **Persian:** Native
- **Azari:** Native
- **English:** Intermediate

CONFERENCES AND SEMINARS ATTENDED

- Computational methods for modelling bionano interactions and nanomaterials functionality workshop (26–28 June 2023, CECAM-IRL-Online), <https://www.cecarn.org/workshop-details/1231>
- 31st International Conference on Electrical Engineering (ICEE) (9–11 MAY 2023, Electrical Engineering Department, Amirkabir University of Technology), <https://iceeconr.ir/2023>
- Fifth IPM Advanced School On Computing & Artificial Intelligence (5–8 SEP 2021, Online)
- PyTorch Workshop (4–7 SEP 2021, Computer Science Department, IASBS)

INTERESTS AND HOBBIES

- Reading books
- Traveling

REFERENCES

- **Dr. Mohsen Hooshmand**

Institute for Advanced Studies in Basic Sciences (IASBS), Zanjan, Iran
Assistant Professor

- Thesis supervisor
- Email: mohsen.hooshmand@iasbs.ac.ir
- Website: <https://iasbs.ac.ir/~mohsen.hooshmand>

- **Dr. Zahra Narimani**

Institute for Advanced Studies in Basic Sciences (IASBS), Zanjan, Iran
Assistant Professor

- Email: narimani@iasbs.ac.ir
- Website: <https://iasbs.ac.ir/~narimani>