

Shayan Hashemi

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Education

- 2020–Present **Ph.D. in Information Processing Science**, Department of Information Technology and Electrical Engineering, University of Oulu, Finland.
Supervisor: Prof. Mika Mäntylä.
Research Topic: Software Log Anomaly Detection.
- 2016–2019 **M.Sc. in Computer Engineering, Software**, Department of Electrical and Computer Engineering, Isfahan University of Technology, Iran.
Supervisor: Dr. Mehran Safayani.
Research Topic: Visual Question-Answering.
- 2010–2016 **B.Sc in Computer Engineering, Software**, Department of Computer, Azad University - Najafabad Branch, Iran.
Project Advisor: Dr. Mehdi Jabalameli.

Publications

- S. Hashemi** and M. Mäntylä. “OneLog: Towards End-to-End Learning in Software Log Anomaly Detection”.
- S. Hashemi** and M. Mäntylä. “SiaLog: Detecting Anomalies in Software Execution Logs using the Siamese Network”.
- S. Hashemi**, M. Safayani, and A. Mirzayi. “Multiple answers to a question: a new approach for visual question answering” [Link].
- M. Mäntylä, M. Varela, and **S. Hashemi**. “Pinpointing Anomaly Events in Logs from Stability Testing – N-Grams vs. Deep-Learning” [Link].

Articles

- Neural Knapsack**, *Solving the knapsack problem using neural networks*, [Link].
- Neural Cryptography**, *Neural embedding of a message into an image using deep neural networks*, [Link].

Research Experiences

- 2020–Present **Doctoral Researcher**, *Software log anomaly detection*, University of Oulu.
- 2017–2019 **Master’s Thesis Researcher**, *Multi-answer visual question answering using deep neural networks*, Isfahan University of Technology.

Teaching Experiences

- Spring 2012 Teaching assistant for **Advanced Programming**, *Department of Computer, Azad University - Najafabad Branch, Iran.*
- Fall 2012 Teaching assistant for **Principles of Computer and Programming**, *Department of Computer, Azad University - Najafabad Branch, Iran.*
- Spring 2018 Teaching assistant for **Operating Systems**, *Department of Electrical and Computer Engineering, Isfahan University of Technology, Iran.*
- Fall 2018 Teaching assistant for **Advanced Programming**, *Department of Electrical and Computer Engineering, Isfahan University of Technology, Iran.*
- Spring 2022 Teaching assistant for **Next Generation of Software Engineering**, *Department of Information Technology and Electrical Engineering, University of Oulu, Finland.*

Work Experiences

- Jan 2020 - **AI Researcher**, *University of Oulu*, Software Log Analysis Research.
Now
- Dec 2018 - **Junior AI Researcher**, *Isfahan University of Technology.*
- Apr 2019
 - During two years of research in visual question answering, I introduced a new topic suggesting that a question may have multiple correct answers within a single image. Furthermore, I presented a solution that integrates previous object detection methods with visual question-answering models and utilizes that to produce the answer. My research was published as a paper named "Multiple answers to a question: a new approach for visual question answering" [Link]."
- Mar 2015 - **Senior Software Engineer**, *Betternet Technologies.*
- Aug 2016
 - I developed the Betternet iOS app from scratch using UIKit and Objective-C ([Link])
 - Contributed to the development of Betternet Android app using Java ([Link])
 - Part of a two-persons team responsible for client part of a new VPN protocol called Hexatech for Linux, iOS, Android using C++, Java, JNI, and Objective-C
 - Developed multiple embedded system services for the smart router device called "Betterspot" ([Link]). The router passes the entire traffic of its clients through a VPN tunnel. I used C/C++ for developing the embedded system services, such as switching VPN services and changing the LED color, and Lua for web services.
- Jan 2013 - **Senior Software Engineer**, *Zana Mob Co.*
- Jan 2014
 - I got involved in multiple Android application development projects
- May 2010 - **Junior Software Engineer**, *BASA Co.*
- Oct 2012
 - Responsible for software and service maintenance of Isfahan province portal
 - Developed multiple Liferay-based portlet for Isfahan province portal
 - Contributed to localization of a retail shop management software called "Retail Pro"
 - Developed a new web site for BASA Co

Certificates

- Coursera
- Improving Deep Neural Networks, *Deeplearning.ai*
 - Structuring Machine Learning Projects, *Deeplearning.ai*
 - Convolutional Neural Networks, *Deeplearning.ai*
 - Sequence Models, *Deeplearning.ai*
 - Natural Language Processing, *HSE University*
 - Sequence, Time Series and Prediction, *Deeplearning.ai*
 - Natural Language Processing with Sequence Models, *Deeplearning.ai*
 - Natural Language Processing in TensorFlow, *Deeplearning.ai*

Collaborations

- As a freelancer, I undertook a natural language processing software project to detect spam emails in Persian. I was responsible for designing, implementing, and deploying an NLP model to analyze email contents and detect spam.
- As a freelancer, I developed customer and collector application for iOS and Android for recycling collection company. I used Java to implement the Android applications and Use UIKit and Swift for iOS applications.
- An intelligent software for pin pointing anomalous log lines in large stability test logs. I was responsible with parsing log messages into machine processable vectors.

References

- 1 **Professor. Mika Mäntylä**, *Department of Information Technology and Electrical Engineering, University of Oulu, Finland.*
mika.mantyla@oulu.fi
- 2 **Iman Rahmatizadeh**, *Google, California, USA.*
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- 3 **Morteza Milani**, *Klue Labs Vancouver, BC.*
morteza@klue.com
- 4 **Dr. Mehran Safayani**, *Department of Electrical and Computer Engineering, Isfahan University of Technology, Iran.*
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- 5 **Dr. Abdolreza Mirzaei**, *Department of Electrical and Computer Engineering, Isfahan University of Technology, Iran.*
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- 6 **Dr. Mehdi Jabalameli**, *Department of Computer, Azad University Najafabad Branch, Iran.*
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