Curriculum vitae

PERSONAL INFORMATION   Samaneh Zolfaghari

She has submitted her doctoral thesis in Computer Science at the University of Cagliari and her defense date is fixed on the 28th of April 2023. Her Ph.D. research was under the supervision of Prof. Daniele Riboni. Previously, she worked as a research fellow in the faculty of computer engineering at the University of Alzahra, and at the Internet Technology Center of the Shahid Rajaee Teacher Training University, Tehran (IRAN). Moreover, she was a visiting researcher for more than 1 year at the research group on cognitive methods for ambient assisted living and for 3 months in the Institue for Data Science, at the faculty of computer science and electrical engineering of the University of Rostock and at the University of Greifswald, respectively, where both based in Germany.

EDUCATION

2019–2023   PhD in computer science

University	Università degli Studi di Cagliari, Italy
Dissertation	Locomotion Traces Data Mining for Supporting Frail People with Cognitive Impairment
Supervisor	Prof. Daniele Riboni
Co-supervisor	Prof. Diego Reforgiato Recupero

2015–2017   M.S. in Software Engineering (course-based degree)

University	Alzahra University, Tehran, Iran
Project	Human Activity Recognition in Ambient Assisted Living Environments
Supervisor	Prof. Mohammad Reza Keyvanpour
GPA	16.63/20

2011–2013   B.S. in Software Engineering

University	Shahid Rajaee University, Tehran, Iran
Thesis	Increase the accuracy of decision-making algorithm in 2D Soccer Simulation using probability distributions
Supervisor	Dr. Hamid Reza Shayegh Boroujeni
GPA	17.65/20

PROFESSIONAL ACTIVITIES

Academic career

January 2023 – March 2023	*Institute for Data Science, University of Greifswald, Germany*
Role	Visiting scholar
Project	BehavE: Behaviour Understanding through Situation Models for Situation-aware AssistancE
	Create a knowledge graph/ontology of actions, their corresponding sensor readings from available datasets, and concepts from the cooking domain.
Host	Prof. Dr. Ing. Kristina Yordanova
October 2019 – January 2023	*AIBD Lab, University of Cagliari, Italy*
Role	PhD researcher
	AI and IoT technologies for supporting frail people
Directors	Prof.Salvatore M. Carta, Prof.Diego Reforgiato R., Prof.Daniele Riboni
July 2021 – December 2022	*CoMSA^{2}T Research group, University of Rostock, Germany*
Role	Visiting scholar
Projects	Benchmark in Activity Recognition for Kitchen Task Assessment
	Working on embedded and wearable sensory data for kitchen task assessment
	Data annotation, action, and anomaly detection: considering performed activities to provide a functional measurement evaluating cognitive processes that affect task performance
Hosts	Prof. Dr. Ing. Kristina Yordanova, Prof. Dr. Thomas Kirste
October 2016 – September 2017	*Data Mining and Software Engineering Lab, Alzahra University, Iran*
Roles	Lab director, Research fellow
Tasks	Collaborated on several proposals which got accepted for grants:

- eHealth based on AI (got a grant for 3 years)

- An Intelligent Supportive System for Elderly People based on Activity Recognition in Islamic Iranian life Style (got a grant for 1 year)

	Set up a data mining and software engineering laboratory at the Alzahra University, Iran
	Research on "Human Activity Recognition in Ambient Assisted Living Environments"
Supervisor	Dr. Mohammad Reza Keyvanpour
September 2011 – December 2011	*IT Center, Shahid Rajaee University, Tehran, Iran*
Role	Research fellow
Research project	Capture the Flag using DVB-RCS for Educating purpose
Supervisor	Eng. Faramarz Givehki

Educational activities

December 16 , 2021	Department of Mathematics and Computer Science, University of Cagliari, Italy
	Seminar on "Learning ElasticSearch and Kibana step by step" for the "Advanced Data Management" course
December 10 , 2021	Department of Mathematics and Computer Science, University of Cagliari, Italy
	Seminar on "Learning the Kafka Message Broker Step by Step" for the "Advanced Data Management" course
April 2015 – July 2017	Department of Computer Engineering, Alzahra University, Iran
Role	Teaching assistant
Courses	Relational Databases, Compiler Design Principles
September 2011 – December 2011	Faculty of Computer Engineering, Shahid Rajaee University, Iran
Role	Teaching assistant
Course	Machine and assembly language

Industrial Experiences

| July 2018 – September 2019 | *Amnpardaz software company, Iran* |
| Responsibilities | R&D, Part-time Technical Scrum Master |

Stream data collection, handling big data, and data engineering, data management, data analysis, and visualization using different programming and scripting languages, tools, and technologies such as ReactJS, C♯, EF6, Elasticsearch, Kibana, Kafka, Zookeeper, and Grafana on Nginx Web Server.

| October 2017 – March 2018 | *SPMN software company, Iran* |
| Responsibility | Web developer |

Developing Gaming telegram bot by Java Script and Mongoose (Node js, Mongo DB) on Nginx Web Server

| December 2012 – February 2013 | *BehnegarSoft software company, Iran* |
| Responsibility | Front-end developer |

Web design and development of comprehensive and practical web-based CMS by different scripting languages, tools and technologies PHP, Java Script,jQuery, HTML, CSS & CSS Image Sprites, NuSphere phpED, Navicat, TopStyle, and MySQL RDBMS for data management

TECHNICAL SKILLS

– **Scripting Languages**
  • Python, R
– **Tools**
  • PyData stack: pandas, numpy, scikit-learn, etc.
  • ML tools: Tensorflow, Keras, Weka
  • Computing platform: Jupyter Notebook
  • Visualization tools: Power BI, Kibana, Grafana
  • Annotation tool: EALN
  • Software tools: Elasticsearch, Kafka, Zookeeper
  • Databases: MySQL, MongoDB, PostgreSQL
  • Version control system: Git
  • CASE tools: Enterprise Architect
  • Operating systems: Windows, Linux
  • Proficient with LaTeX and most Microsoft Office programs such as Word, PowerPoint, Excel

PERSONAL SKILLS

| Mother tongue | Persian |

Other languages

UNDERSTANDING		SPEAKING		WRITING
Listening	Reading	Spoken interaction	Spoken production	
English				
B2	B2	B2	B2	B2
the certificate of knowledge of the foreign language in use at the foreign destination issued by the University Language Center (CLA).				
Italian				
A2	A2	A2	A2	A2
the ERASMUS / GLOBUS certificate of ITALIAN Language Held at the Interdepartmental Center for Teaching Italian to Foreigners				

Levels: A1 and A2: Basic user – B1 and B2: Independent user – C1 and C2: Proficient user
Common European Framework of Reference for Languages

Organisational / managerial skills
– Experienced in working on agile projects with the Scrum framework related to my part-time technical scrum master experience and R&D in Amnpardaz software company, Iran
– Regarding organizational and managerial skills, whilst working in the Alzahra University Data Mining Lab, I worked as a Lab director as well in order to carry out the necessary executive and coordination tasks. I had different roles:
  • Management, planning regulations, and design basic guidelines
  • Supervise the performance of colleagues based on their responsibilities in the Lab,
  • Coordinate students who are graduating or are close to the time of graduation,
  • Keep track of pre-defense and periodical meetings
  • Worked as a supervisor of students while doing their thesis and writing their project reports/papers to publish.

Digital competences

SELF-ASSESSMENT				
Information Processing	Communication	Content creation	Safety	Problem solving
Proficient user	Independent user	Independent user	Independent user	Independent user

Digital competences - Self-assessment grid

FELLOWSHIPS AND AWARDS

October 2022 – December 2022
Awarded Erasmus+ PLACEDOC mobilibity grant
Issuer   Student mobility sector and activities related to exchange programs, University of Cagliari, Italy

October 2019 – January 2023
Awarded research doctoral scholarship
Issuer   Department of Mathematics and Computer Science, University of Cagliari, Italy

April 2016
Awarded for the best article
Issuer 2nd International Conference on Web Research (ICWR), 2016
The article presented in ICWR 2016 was selected among the best articles according to the comments of the scientific committee of the conference after the oral presentation, and was presented to IJEBR, a well-known journal of the publisher IGI-Global, to publish an extended version.

CERTIFICATES

August 2022   SQL: Data Reporting and Analysis
August 2022   Power BI Essential Training
July 2021   DeepLearn 2021 Summer school
November 2020 - May 2021   Doctoral and Post-Doctoral Seminar on EU Fund Rising and Project Planning
December 2020   Python for machine learning research (Projects: Recommender systems, Biometric Systems)
July 2020   Advanced Course on Data Science & Machine Learning
April 2020   PhD Course on Smart Environments: Technologies, state of the art and research challenges

PROFESSIONAL AFFILIATIONS

Graduate Student Member   IEEE
Year   2016 – Now
Graduate Student Member   IEEE Women in Engineering
Year   2016 – Now
Graduate Student Member   IEEE Computer Society
Year   2017 – Now
Graduate Student Member   IEEE Young Professionals
Year   2017 – Now