Mahya Mohammadi Kashani
Curriculum Vitae

PERSONAL DETAILS

Phone	(0045) 71-687585
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Website	https://pure.itu.dk/en/persons/mahya-mohammadi-kashani
GitHub	https://github.com/mahyamkashani
LinkedIn	www.linkedin.com/in/mahya-mohammadi-kashani-84023b9b
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Address	Københavns, København 2300, Danmark

RESEARCH INTEREST

Underwater Robots Testing, **Information Retrieval**, **Large Language Models**, **Probabilistic Programming**, Self-supervised Learning, Sparse Coding, and Dictionary Learning

EDUCATION

PhD in Computer science   `2021-present`

IT-University of Copenhagen, Copenhagen, Denmark

> Major: Marie-Curie PhD fellowship within **Reliable AI for Marine Robotics Innovative Training Network (REMARO ITN)**
>
> Thesis Title: **Statistical assessment of plans via probabilistic optimization of reliability**,
>
> under supervision of **Prof. Andrzej Wasowski**

MSc. in Computer Engineering   `2016-2019`

Shahid Rajaee Teacher Training University, Tehran, Iran

> Major: **Artificial Intelligence and Robotics**
>
> Thesis Title: **Search-based automatic image annotation using deep models**,
>
> Class Rank: 3th place among 2016-2019 MSc. Students
>
> GPA:18.12/20 (3.88/4)

BSc. in Computer Engineering   `2010-2014`

Shahid Rajaee Teacher Training University, Tehran, Iran

> Major: **Software Engineering**
>
> Thesis Title: **Development of a Filter Driver for Disk Access Control in Lowest Level of Drivers Hierarchy**.
>
> Class Rank: Top 10%
>
> GPA:17.18/20 (3.57/4)- Last two years: 17.89/20 (3.89/4)

PUBLICATIONS

To be submitted   `Mar2024`

    Mahya M. Kashani, Tobias John, Jeremy P. Coffelt, Einar B. Johnsen and Andrzej Wasowski,"To be submitted to IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS'24)." Abstract

Extended Abstract   `Nov. 2023`

    Tobias John, **Mahya M. Kashani**, Jeremy P. Coffelt, Einar B. Johnsen, and Andrzej Wasowski. "In the 34th Nordic Workshop in Programming Theory (NWPT'23)", Extended Abstract, November 22-23, 2022, Mälardalens högskola, Västerås, Sweden. 2023. Preprint

Conference   `Aug. 2022`

    Jeremy P. Coffelt, **Mahya Mohammadi Kashani**, Andrzej Wasowski, and Peter Kampmann. "Belief-based fault recovery for marine robotics." In The Eighth Joint Ontology Workshops (JOWO'22), August 15-19, 2022, Jönköping University, Sweden. 2022. Paper

Journal   `Mar. 2022`

    Roostaiyan, Seyed Mahdi, Mohammad Mehdi Hosseini, **Mahya Mohammadi Kashani**, and S. Hamid Amiri. "Toward real-time image annotation using marginalized coupled dictionary learning." Journal of Real-Time Image Processing 19, no. 3 (2022): 623-638.Preprint

The quarterly journal   `Feb. 2022`

    Mohammadi Kashani, Mahya, and S. Hamid Amiri. "Scalable Image Annotation by Summarizing Training Samples into Labeled Prototypes." Signal and Data Processing 18, no. 4 (2022): 49-68. Abstract

Conference   `Oct. 2017`

    Mahya Mohammadi Kashani, and S. Hamid Amiri. "Leveraging deep learning representation for search-based image annotation." Artificial Intelligence and Signal Processing Conference (AISP), 2017. IEEE, 2017,DOI:10.1109/AISP.2017.8324073

ACADEMIC EXPERIENCE

Teaching Assistant   `Fall 2021-23`

Computer Science Department at IT-University of Copenhagen

    Course Title: Advanced Functional Programming(Scala), graduate course) Under supervision of **Prof. Andrzej Wasowski**

Visiting Scholar   `Spring 2023`

Institute for Artificial Intelligence (IAI) building at University of Bremen

    Under supervision of **Prof. Michael Beetz**

Research Assistant   `2017-2019`

Shahid Rajaee University, Tehran, Iran

    Activities: Full-time Research Assistant at Computer Vision and Pattern Recognition Lab, work on various projects:

    Title project: Toward real-time image annotation using marginalized coupled dictionary learning and Scalable Image Annotation via Semantic Prototypes Learning

    Providing Research Proposal accepted from Ministry of Education, 2018, Tehran, Iran. Helping Bachelor project of 2 undergraduate students.

    Title project: Development and implementation of automatic image annotation systems

    .

Teaching Assistant   `Fall 2019`

Computer Engineering Department at Shahid Rajaee University

Course Title: Stochastic Processes (Grad Course)

Activities: Designing assignments and Solving problems of probability, random variables, and stochastic processes book written by A. Papulis .

Teaching Assistant `Spring 2018`

Computer Engineering Department in Shahid Rajaee University

Course Title: Digital Signal Processing (Grad Course)

Activities: Solving problems of Digital Signal Processing book written by Vinay K. Ingle, John G. Proakis, helping students in solving assignments.

Teaching Assistant `Fall 2018`

Computer Engineering Department in Shahid Rajaee University

Course Title: Signals and Systems (UnderGrad Course)

Activities: Solving problems of Signal Processing and Linear Systems book written by B. P. Lathi, helping students in final project.

Teaching Assistant `Fall 2017`

Computer Engineering Department in Shahid Rajaee University

Course Title: Stochastic Processes (Grad Course)

Activities: Designing assignments and Solving problems of probability, random variables, and stochastic processes book written by A. Papulis.

WORK EXPERIENCE

Computer Vision Engineer `2020-2021`

Robotics Lab in Shahid Rajaee University

Projects: Waste segregation robot (Funded by Municipality of 21st district of Tehran)

Skills: Computer Vision, Image Processing, Deep Learning, Industrial Camera Calibration, In Collaboration with Mechanical and Electrical Engineers

Python Developer `2018-2021`

SoftRemedy Inc. (Asan Darman Arya), Project-based

Projects: Pill Reminder APP, Health Online Shop and some other Panels

Skills: Back-end Developer, data pre-processing, re-Design ORM

PROJECTS

Mission Assistant of Marine Robots by Encyclopaedic Roadmap, 2023-present

Statistical assessment of plans via probabilistic optimization of reliability, 2021-2024

Search-based Image Annotation using Deep Models, 2017-2021

Scalable Image Annotation via Semantic Prototypes Learning, 2018-2019

Pill Reminder App, 2019-2021

Health Online Shopping App, 2020- 2021

Waste segregation Robot *Computer Vision Section, Camera Calibration*, 2020-2021

NOTABLE COURSES

Probabilistic Programming, Introductory on Semantic Logics

Machine Learning and Neural Networks

Stochastic Processes, Numerical Optimization, Numerical Analysis

Engineering statistics and probabilities, Digital Signal Processing

Digital Image Processing, Computer Vision

Statistical Pattern Recognition

GENERAL SKILLS

Languages	Persian (native) English Level: B2 (CEFR 117.5/150) in 2021
Programming	PYTHON,MATLAB, ROS, C++
Frameworks	TENSORFLOW,KERAS,PYTORCH
Web Designing	OOP,RESTFUL API,FLASK, DESIGNINGPATTERNS,HTML/CSS/JS
DataBases	SQLSERVER,MYSQL REDIS,MONGO
Editing	LATEX, MSOFFICE, PREZI
OS	LINUX, WINDOWS

REFERENCES

Prof. Andrzej Wasowski, Full Professor and Coordinator at REMARO ITN
Department of Computer Science, IT-University of Copenhagen, Københavns, København,
Danmark `wasowski@itu.dk`

Prof. Einar B. Johnsen, Full Professor, Supervisor in my Master's program
Department of Informatics, University of Oslo (UiO), Oslo, Norway `Einarj@ifi.uio.no`

Dr. Alireza Bosaghzade , Assistant Professor and Advisor at Robotics Lab
Shahid Rajaee Teacher Training University, Lavizan, Tehran, Iran `a.bosaghzadeh@sru.ac.ir`

ADDITIONAL INFO

You can check out my presentation in my personal website