

Sahar Salimpour

Curriculum Vitae

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Date of birth: October . 08 . 1993
Date of CV: September 2023

Education

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- 2022-present **PhD student**, University of Turku, Finland
- ▶ **Thesis Title:** Deep-Learning-Enhanced Predictive Situational Awareness For Robot Swarm
- 2016-2019 **M.Sc. System Telecommunication Engineering**, University of Tabriz, Tabriz, Iran
- ▶ **Thesis Title:** Image locations storage and retrieval for an AGI-based agent
 - ▶ **GPA:** 3.62/4
- 2012-2016 **B.Sc. Electrical Engineering - Electronics**, Urmia University, Urmia, Iran
- ▶ **Thesis Title:** Low Pass FIR Filter design using Verilog
 - ▶ **GPA:** 3.57/4

Current Position

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- 2022-present ▶ **Ph.D. candidate**, Turku Intelligent Embedded and Robotics Systems (TIERS) Group , University of Turku, Finland

Publications

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- Submitted ▶ S. Salimpour, P. Torrico, JP. Queralt, T, Westerlund **Exploiting Redundancy for UWB Anomaly Detection in Anchor-free Multi-Robot Localization Systems**, Frontiers in Robotics and AI, 2023
- 2022 ▶ S. Salimpour, JP. Queralt, T, Westerlund **Self-Calibrating Anomaly and Change Detection for Autonomous Inspection Robots**, IEEE Robotic Computing conference, 2022
- 2022 ▶ S. Salimpour, F. Keramat, JP. Queralt, T, Westerlund **Decentralized vision-based byzantine agent detection in multi-robot systems with iota smart contracts**, International Symposium on Foundations and Practice of Security Conference, 2022
- Submitted ▶ Y. Xianjia, S. Salimpour, JP. Queralt, T, Westerlund **Analyzing General-Purpose Deep-Learning Detection and Segmentation Models with Images from a Lidar as a Camera Sensor**, Sensors 2023.

- 2023 ▶ P. Torrico, S. Salimpour, Lei Fu, JP. Queralt, T, Westerlund **Benchmarking UWB-Based Infrastructure-Free Positioning and Multi-RobotRelative Localization: Dataset and Characterization**, 2023 IEEE Sensors Applications Symposium (SAS).
- 2022 ▶ S. Salimpour, H. Kalbkhani, S. Seyyedi, V. Solouk, **Stockwell Transform and Semi-Supervised Feature selection from Deep Features for Classification of BCI Signals**, scientific reports journal, 2022.
- 2021 ▶ S. Salimpour, H. Seyedarabi, j. Mousevi Niya, **Hybrid navigation based on GPS data and SIFT-based place recognition using Biologically-inspired SLAM**, International Conference on Computer and Knowledge Engineering, 2021.

Language Skills

- ▶ **Farsi:** Native
- ▶ **English:** Fluent (IELTS score 7/9 : Reading 7 , Listening 7, Speaking 7, Writing 6)
- ▶ **Turkish:** Advanced
- ▶ **Kurdish:** Advanced

Participations

- ▶ **Reinforcement Learning Summer School**, Barcelona, 2023
- ▶ **ETH Summer Robotics School**, 2023, Switzerland
- ▶ **ENRICH competition** (European Robotics Hackathon), Austria, 2023

Technical skills

- ▶ **Programming Languages:** Python (deep and machine learning libraries such as Pytorch, Tensorflow, Opencv, scikit-learn), MATLAB, Linux
- ▶ **Engineering Software:** ROS1, ROS2, Gazebo, Isaac Sim

Previous Researches

- ▶ Visual Navigation for Mobile Robots
- ▶ Visual perception in robotics
- ▶ Robots localization
- ▶ Lidar-based people detection

Academic Experience

- 2023 ▶ Teaching Assistant for "Hardware Accelerators for AI" University of Turku
- 2019 ▶ Research Assistant for "Signals and Systems" in Urmia University of Technology, Iran
- 2018 ▶ Research Assistant for "Electronic" in University of Tabriz, Iran