Abdullah Yusefi

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PhD in Sensor fusion and Visual-based Localization in Autonomous Systems. • 4.0+ yrs. of hands-on experience with 3D/2D LiDAR, 4D/3D Radar, Inertial sensors, RTK GNSS and Mono/Stereo Cameras. • Developed and implemented software for autonomous navigation, perception, and control systems in robotics.

EDUCATION

PhD, Computer Science Engineering	Faculty of Engineering	Konya Technical University, Turkey	Sep 2017 – Jan 2024
Turkish Language Preparation	Selçuk TÖMER	Selçuk University, Turkey	Sep 2016 – Aug 2017
Masters, Computer Science Engineering	University College of Engineering	Osmania University, India	Sep 2012 – Dec 2014
Bachelor of Computer Science	Faculty of Computer Science	Kabul University, Afghanistan	Sep 2008 – Nov 2011

CERTIFICATIONS

Build Basic Generative Adversarial Networks (GANs)	Coursera	**Credential ID**: ESJYTWRAT64N	Dec 2020
Neural Networks and Deep Learning	Coursera	**Credential ID**: 7TBHQGVPUZCR	Dec 2020
Coding for Everyone: C and C++ Specialization	Coursera	**Credential ID**: AWWVL8PS6FMG	Nov 2020

WORK EXPERIENCE

R&D Software Engineer – Robotics & Autonomous Vehicles, MPG Machinery Production Group Inc. Konya, Turkey May 2021 - Cont.

- Develop and implement software for autonomous navigation, perception, and control systems in robotics.
- Integrate visual, LiDAR, and IMU sensors for real-time environment perception.
- Apply machine learning for optimizing decision-making in dynamic environments.
- Use simulation tools to validate robotic algorithms in various scenarios.
- Collaborate with multidisciplinary teams to integrate software into complete robotic systems.
- Prepare technical documentation to communicate complex concepts effectively.
- Mentor junior team members and fostered a collaborative team environment.
- Stay updated with advancements in robotics and software engineering.

NOC Supervisor, RANA Technologies Enterprises (RTE) Kabul, Afghanistan Feb 2015 - Aug 2016

- Oversee customer requests and promptly handle service events.
- Address escalated issues for timely resolution.
- Manage trouble ticket procedures, serving as an escalation point for NOC employees.
- Supervise phone queues, ticket statuses, and core network maintenance, demonstrating self-management, logical thinking, and strong communication skills.

IP Backbone Engineer, Afghan Wireless Communication Company (AWCC) Kunduz, Afghanistan Dec 2011 - Aug 2012

- Install and configure Cisco networking equipment for optimal functionality.
- Monitor and maintain IP/VoIP/VPN networks to ensure reliability and high performance.
- Manage configurations, including backup, restoration, and modifications.
- Analyze syslogs, manage alarms, implement QoS for efficient bandwidth, oversee network management, troubleshoot issues, and ensure timely resolutions.

SKILLS

Language: C++, Python **Framework**: ROS 1/2, OpenCV **Machine Learning**: Keras, PyTorch **OS**: Linux, Windows **Sensor**: Camera, LiDAR, Radar, IMU, GNSS

PUBLICATIONS

A Unified Monocular Vision-Based Driving Model for Autonomous Vehicles with Multi-Task Capabilities Oct 17, 2024
IEEE Transactions on Intelligent Vehicles, IEEE URL: https://ieeexplore.ieee.org/abstract/document/10721282/

A Generalizable D-VIO and Its Fusion with GNSS/IMU for Improved Autonomous Vehicle Localization Sep 18, 2023
IEEE Transactions on Intelligent Vehicles, IEEE URL: https://ieeexplore.ieee.org/abstract/document/10254363

Narrow Space Warning and Slope Control System compatible with ADAS Jul 05, 2023
2023 SIU, IEEE URL: https://ieeexplore.ieee.org/abstract/document/10223997

Improved Dead Reckoning Localization using IMU Sensor Nov 10, 2023
2022 ISETC, IEEE URL: https://ieeexplore.ieee.org/abstract/document/10010239

HVIOnet: A deep learning based hybrid visual–inertial odometry approach for unmanned aerial system position estimation Nov 01, 2023
Neural Networks, Pergamon URL: https://www.sciencedirect.com/science/article/abs/pii/S0893608022003355

COVID-19 Isolation Control Proposal via UAV and UGV for Crowded Indoor Environments: Assistive Robots in the Shopping Malls May 31 2022
Frontiers in public health, Frontiers Media SA URL: https://www.frontiersin.org/articles/10.3389/fpubh.2022.855994/full

The YTU dataset and recurrent neural network based visual-inertial odometry Nov 01, 2021
Measurement, Elsevier URL: https://www.sciencedirect.com/science/article/abs/pii/S0263224121008198

A tutorial: Mobile robotics, SLAM, bayesian filter, keyframe bundle adjustment and ROS applications Jul 18, 2021
Robot Operating System (ROS), Springer URL: https://link.springer.com/chapter/10.1007/978-3-030-75472-3_7

Performance comparison of Extreme Learning Machines and other machine learning methods on WBCD data set Jun 09, 2021
2021 SIU, IEEE URL: https://ieeexplore.ieee.org/abstract/document/9477984

LSTM and Filter Based Comparison Analysis for Indoor Global Localization in UAVs Jan 08, 2021
IEEE Access, IEEE URL: https://ieeexplore.ieee.org/abstract/document/9316698

LANGUAGE SKILLS

- Turkish (Fluent)
- Persian (Native)
- Uzbek (Native)
- English (Excellent)