Javad Ibrahimli

ADAS Researcher · Electronics and Communication Engineering Student

Istanbul, Turkey

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Personal Profile

Dedicated Electronics and Communication Engineering student at Istanbul Technical University, with a strong focus on autonomy, robotics, and machine learning applications. Proficient in developing innovative solutions for autonomous systems, particularly in computer vision, sensor fusion, and real-time data processing. Experienced in Python, MATLAB, ROS, and embedded systems development, with hands-on experience in configuring sensors and working with Linux environments. Actively involved in research and academic projects, while consistently achieving top results in international competitions. Passionate about continuous learning, with a drive to leverage emerging technologies to solve complex engineering challenges.

Education

Istanbul Technical University

BSc in Electronics and Communication Engineering

- Chose Elective Courses in Autonomy, Machine Learning, Robotics, and Programming
- Key Courses: Data Structures and Algorithms, Artificial Neural Networks, Machine Learning for Signal Processing, Signal Processing, Probability
 and Statistics, Electronic Circuits

Work Experience

Leo Drive

Autonomous Driving Software Engineer

- Developed and deployed autonomous driving software systems, focusing on perception, planning, and control using Autoware.
- Integrated sensor fusion techniques to enhance real-time decision-making for autonomous vehicles.
- · Collaborated with cross-functional teams to ensure the seamless integration of hardware and software in real-world conditions.
- Utilized Autoware to implement and test autonomous driving algorithms, improving system efficiency by 25%.
- Skills: Python, C++, ROS, LiDAR, Sensor Fusion, Computer Vision, Autonomous Navigation, Autoware

DIVIT - Divit Digital Video and Image Technologies

Computer Vision Engineer

- Developed and optimized AI models for real-time image recognition using CNN and YOLO.
- Deployed models for on-shelf availability (OSA) systems, enhancing inventory management with computer vision.
- Improved model accuracy by optimizing hyperparameters and implementing parallel processing techniques.
- Skills: Python, TensorFlow, CNN, YOLO, Computer Vision, AI Model Optimization

ITU ZES Solar Car Team

Autonomous Systems Group Member

- Designed and developed software modules for autonomous driving systems, including perception, planning, and control using Autoware.
- Integrated and calibrated sensors such as LiDAR, cameras, and GPS for accurate data acquisition.
- Implemented autonomous driving functionalities with Autoware, enhancing vehicle performance in dynamic environments.
- Conducted testing and validation in real-world scenarios, improving system performance through iterative optimization.
- Skills: Python, C++, ROS, Sensor Integration, Object Detection, SLAM, Path Planning, Autoware

World Coffee Portal

Price Analyst & Data Collector

- Collected and analyzed beverage prices from branded coffee chains across Istanbul.
- Visualized data using Python libraries and contributed to the final project report.
- Skills: Data Analysis, Python, Visualization

Upwork

Freelance Programmer

- Completed client software development tasks, focusing on data automation and optimization.
- Boosted model accuracy for traffic sign detection by 30% through shell scripting and Linux tools.
- Skills: Python, Shell Scripting, Linux, Data Automation, Computer Vision

Istanbul Technical University

Student Assistant

- Updated files shared by the professor, ensuring that the most recent and relevant materials were available for students.
- Added coding assignments to in-class files and GitHub, allowing students to practice and apply concepts they were learning.
- Maintained and updated course slides to ensure they were accurate and up-to-date with the latest information and industry developments.
- Regulated technical tasks, including setting up equipment, troubleshooting technical issues, and ensuring the smooth operation of the course.
- Skills: Course Material Management, GitHub, Troubleshooting, Equipment Setup

Istanbul, Turkey

Istanbul, Turkey

Oct 2021 - Current

Aug 2024 - Sep 2024

Istanbul, Turkey

Jul 2024 - Aug 2024

Istanbul, Turkey

Jan 2023 - Feb 2024

Feb 2023 - Mar 2023

Online

Online Mar 2022 - Nov 2022

Istanbul, Turkey

Dec 2022 - Mar 2023

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Projects_____

2024	GPS Publisher for ROS 2 Humble , Built a GPS publisher node for ROS 2 to simulate and publish GPS data,	Project Link
2024	Self-Driving Cars Final Project, Developed a self-driving system using sensor fusion and vehicle dynamics.	Project Link
2024	Heart Attack Prediction using ML, Applied ML models to predict heart attack risks using EDA and clustering.	Project Link
2024	Motion Planning Simulation on Carla , Implemented motion planning phases with behavior planning for traffic.	Project Link
2024	Flower Recognition Using CNN, Developed a CNN to classify flower images with data augmentation techniques.	Project Link
2024	Urban Noise Classification using ML , Classified urban noise using DNN, CNN, and LSTM models for sound analysis.	Project Link
2023	YOLO v5 Model for Traffic Sign Detection , Trained a YOLOv5 X-Large model on over 15,000 images to accurately detect traffic signs for Teknofest.	

More projects and detailed information available on my Website

Skills_____

Programming Languages	C++, Python (NumPy, Pandas, OpenCV, PyTorch, TensorFlow), 出EX
Frameworks & Libraries	ROS, Autoware, OpenCV, TensorFlow, PyTorch, Lanelet2
Tools & Platforms	Linux/Ubuntu, Git/GitHub, Docker, Gazebo, CARLA, VSCode, MATLAB
Technologies	Sensor Fusion, SLAM, Path Planning, Computer Vision, Machine Learning, Deep Learning
Hardware & Sensors	LiDAR, RADAR, Cameras, GPS, IMU
Soft Skills	Googling, Teamwork, Problem-solving, Documentation, Adaptability, Working Under Pressure

Achievements_____

2023	Teknofest Robotaxi-Full Scale Autonomous Vehicle Competition Finalist, One of the 23 teams selected	Talvaafaat
	from 1500+ applications	Teknolest
2023	Chosen participant of Cyber Take Off 2023, One of the 160 people selected from the applications	Turkish Technology
2021	1410/1600, Scholastic Aptitude Test (SAT)	Azerbaijan
2021	C1, Turkish Proficiency Exam	Turkey
2020	8.0/9.0, International English Language Testing System (IELTS)	Azerbaijan
2019	Winner, Azerbaijan Student Informatics Olympics	Azerbaijan
2016	Finalist, The final stage of the 1st Logic Olympiad named after Lotfi Zadeh	Azerbaijan

Interests_____

Googling	I excel at efficiently searching and finding information, enhancing my learning and problem-solving abilities.
Chess	Playing chess helps me improve strategic thinking and decision-making skills.

- **Judo** Practicing judo keeps me physically fit and teaches discipline and focus.
- **Music** Listening to music relaxes and motivates me during work and leisure.

Languages_____

English	Professional proficiency (IELTS Score(8.0)
Turkish	Native proficiency (Turkish Proficiency Exam Score - C1)
Azerbaijani	Native proficiency
Russian	Intermediate proficiency