Arash Daneshvar

Junior Data scientist and Roboticist

As a Data Science and Engineering student with a robust background in Robotics, I am excited to apply my skills at the intersection of robotics and data science. I am actively seeking internship opportunities and a thesis project aligned with my research interests.

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Work Experience

Data Analyst
Ministry of Science, Research and Technology - Iran, Tehran
May 2020 - Apr 2022

- Software developer in the IT department.
- **AI Engineer**: Implemented ML projects using classical algorithms to sort applicants' resumes and determine suitability for university applications.
- **BI Analyst**: Designed and implemented BI dashboards with Power BI to report demanded information.

Education

Master of Science in Data Science and Engineering
Polytechnic University of Turin | *Sep 2022 - Present*

Master of Science in Robotics Engineering
Amirkabir University | *Sep 2015 - Nov 2018*
Thesis: Impedance Control of a Mechanical Arm with Hydraulic Rotary Actuator

Bachelor of Science in Robotics Engineering
Shahrood University | *Sep 2011 - Jul 2015*
Thesis: Design and fabrication of a mini-gripper for force control of a manipulator end-defector

Projects

Computer Vision - "Image Geo-localization Through Retrieval"
Trained on a subset of the cities dataset, accurately identifies the geographic location of a photograph, as demonstrated by its performance on the different datasets, which exhibit variations impacting the recall@N metric.
Tools: PyTorch, Python

Deep Learning for IoT - "Smart Battery Monitoring Using Voice Processing"
System enables remote monitoring of connected device battery status, with users able to control monitoring via voice commands and battery status trends through a web application.
Tools: TensorFlow Lite, Redis, Python

Reinforcement Learning - "Domain Randomization in Reinforcement Learning: Sim-to-Real Transfer for Robotic Control Policies"
This project aims to understand the complexities of training a robot control policy through advanced reinforcement learning methods in simulated environments and addressing the challenge of transferring this learned policy to real-world settings.
Tools: OpenAI Gym, PyTorch, Python

Research Interests

Reinforcement Learning
Robotics
Computer Vision
IoT
Deep Learning and Machine Learning

Related Course

Specialized: Data Science Lab: Process And Methods | Distributed architectures for big data processing and analytics | Data management and visualization | Machine learning for IOT | Robot Learning | Robotics

Basic: Computational linear algebra for large scale problems | Mathematics in Machine Learning

General: Innovation management

General Skills

Excellent **problem-solving** abilities and analytical skills.

Strong **communication** and collaboration skills.

Adaptable and **quick to learn** new technologies and methodologies.

Proven ability to work both **independently** and **as part of a team**.

Technical Skills

Programming Languages: Python, Matlab, Java

Operating Systems: Windows, MacOS, Linux, ROS

Database/Server: MySQL, Redis, MongoDB

Tools & Technologies: TensorFlow, PyTorch, OpenAI Gym, Scikit-learn, Deepnote, Spark, Hadoop, Tableau

Languages

Persian (Native)

English (C1)

Italian (A1)

Interests

Travel, Bikepacking, Videography, Theater

* Flexible to relocate abroad