

# UNIVERSITA' DEGLI STUDI DI GENOVA

AREA RICERCA, TRASFERIMENTO TECNOLOGICO E TERZA MISSIONE

SERVIZIO RICERCA

D.R. n. 2939

## IL RETTORE

- Visto il Decreto Rettorale n. 2237 del 15/05/2023, con il quale è stato indetto il concorso per titoli e colloquio, per il conferimento di n. 1 borsa di ricerca post-laurea di tipo starting della durata di 6 mesi, eventualmente rinnovabili, dell'importo di € 6.060,00 (seimila/60), per lo svolgimento di una ricerca sul tema: "Applicazioni di Computational Intelligence in ambito Costruzioni Navali", presso il DIBRIS dell'Università degli Studi di Genova;
- Visto il Decreto Rettorale n. 2767 del 13/06/2023 con il quale è stata costituita la Commissione giudicatrice per il conferimento della suddetta borsa di ricerca;
- Visto il verbale della Commissione giudicatrice del concorso in parola, riunitasi in data 20/06/2023;
- Constatata la regolarità della procedura seguita;

## DECRETA

### Art. 1

Sono approvati gli atti del concorso di cui in premessa e la seguente graduatoria di merito:

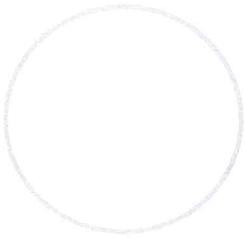
1. Dott.re Ali Varasteh Ranjbar punti 75/100

Sotto condizione dell'accertamento dei requisiti di cui al bando, è dichiarato vincitore del concorso in parola il Dott.re Ali Varasteh Ranjbar.

Genova, 21.06.2023

IL RETTORE

Firmato digitalmente da:  
FEDERICO DELFINO  
Università degli Studi di Genova  
Firmato il: 20-06-2023 17:16:06  
Seriale certificato: 818306  
Valido dal 03-11-2020 al 03-11-2023



# Ali Varasteh Ranjbar

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**Date of birth:**    **Nationality:**    **Phone number:** |

**Email address:** **Website:** | **LinkedIn:** \_\_\_\_\_ |

**Whatsapp Messenger:** | \_\_\_\_\_ |

**Address:** \_\_\_\_\_ |

## About me:

Ali Varasteh Ranjbar is an accomplished Data Scientist and AI researcher with extensive experience in computer vision and industrial research.. With a strong background in industrial applications, Ali has successfully developed cutting-edge algorithms to solve complex data problems. His expertise lies in leveraging AI and machine learning techniques to extract meaningful insights from large datasets. Ali's track record includes notable contributions to computer vision projects in industrial settings on welding process, optimizing processes and enhancing efficiency. With a passion for data-driven solutions, Ali is dedicated to pushing the boundaries of AI and computer vision in industrial applications.

## WORK EXPERIENCE

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01/09/2022 – 30/06/2023 Genova, Italy

### **DATA SCIENTIST RESEARCHER (TIROCINI FORMATIVO) VEGA RESEARCH LABORATORIES**

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- Companies involved: FOS, Vega Research Lab, Cetena (all working for Fincantieri)
- Project description: The project aimed to bring artificial intelligence (AI) to naval manufacturing by implementing image processing techniques for the detection of deformation in steel plates. The goal was to develop algorithms that could accurately identify and measure deformations in the plates, improving the overall quality control process in shipbuilding.
- Duties within the project: As a member of the project team, my responsibilities included:
  - Researching and studying existing image processing algorithms suitable for deformation detection in steel plates.
  - Collaborating with the team to develop and implement new algorithms tailored to the specific requirements of the project.
  - Conducting tests and experiments to evaluate the performance and accuracy of the implemented algorithms.
  - Analyzing the results and providing feedback for further improvements.
- Results achieved:
  - Successfully implemented various image processing algorithms specifically designed for deformation detection in steel plates.
  - Achieved a high level of precision in detecting movement deformations, with an accuracy of up to 1 millimeter.
  - Contributed to enhancing the quality control process in naval manufacturing by providing a reliable and efficient AI-based solution for deformation detection.

03/08/2020 – 09/10/2020 Tehran, Iran

### **RESEARCH AND DEVELOPMENT ASSOCIATE PETRONIC ADRAPANA**

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During my tenure as a Research and Development Associate in the Drilling Studies Department, punctuality and meeting deadlines were paramount in our workflow. I consistently demonstrated a strong work ethic, striving to enhance my expertise and expand my understanding of our field by actively engaging with up-to-date research articles. As a cohesive team, I actively contributed and aimed to be an impactful member. Our primary project centered around Rate of Penetration (ROP) optimization, which involved analyzing Drillers Daily Reports (DDRs), geological forecasts, and the latest literature. Through this analysis, we

sought to optimize well plans and explore avenues for developing additional wells. In our endeavor, we utilized Petrel as our main software tool for well planning and relied on Geolog for graph analysis and verification.

09/02/2018 – 09/10/2019 Tehran, Iran

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### **EDITORIAL DIRECTOR SIMAG**

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I worked at SIMAG Journal, a scientific research journal, where I held the role of Editorial Director. As the Editorial Director, my responsibilities encompassed overseeing the publication process and ensuring the high quality of scientific articles. I was entrusted with managing the editorial team, coordinating peer review processes, and maintaining the journal's standards of excellence. My role also involved engaging with researchers and scholars to foster collaboration and promote the dissemination of impactful scientific discoveries.

**Address** Tehran, Iran | **Website** <http://www.simag.ir/>

03/07/2017 – 07/12/2017 Tehran, Iran

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### **RESEARCH AND DEVELOPMENT ASSOCIATE IRANIAN CENTRAL OIL FIELDS COMPANY**

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During my tenure as a Research and Development Associate in the Drilling Studies Department, punctuality and meeting deadlines were paramount in our workflow. I consistently demonstrated a strong work ethic, striving to enhance my expertise and expand my understanding of our field by actively engaging with up-to-date research articles. As a cohesive team, I actively contributed and aimed to be an impactful member. One of my key responsibilities involved creating advanced mathematical models for Mechanical Earth Model (MEM) simulations, enabling us to better understand drilling dynamics and optimize drilling operations. Additionally, I played a crucial role in writing comprehensive well planning reports, incorporating geological forecasts and Drillers Daily Reports (DDRs). By analyzing these reports and leveraging the latest literature, we were able to identify areas for improvement and optimize our well plans. To facilitate our work, we extensively utilized industry-standard software such as Petrel for well planning and Geolog for graph analysis and verification.

Through these efforts, we strived to enhance drilling efficiency and contribute to the development of innovative drilling techniques for improved performance in the field.

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## **EDUCATION AND TRAINING**

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19/09/2021 – CURRENT Genova, Italy

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### **MSC IN ENGINEERING TECHNOLOGY FOR STRATEGY AND SECURITY** University of Genova

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Activities and societies:

- 1) Python Programming
- 2) Strategy Decision-Making (Game Theories)
- 3) Data Analytics
- 4) Writing Content
- 5) Statistics Analysing

**Address** Genova, Italy | **Website** <http://www.simulationteam.com/strategos/index.html>

21/09/2016 – 17/02/2021 Tehran, Iran

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### **BACHELOR OF OIL DRILLING AND EXTRACTION ENGINEERING**

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Activities and societies:

- 1) Working on two project about in-situ stress and geological problems with Dr. Dehghan, Dr. Delijani and Dr. Esfandiari.
- 2) Participate in journals.

**Address** Science and Research Branch, Daneshgah Blvd, Simon Bulivar Blvd, Tehran, Iran |

**Website** <http://srbiau.ac.ir/en> | **Field of study** Petroleum Engineering | **Final grade** 17.35/20



20/07/2021 – 11/07/2023

**ENGLISH TEST 120/160** Duolingo

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**Website** [certs.duolingo.com/7yx74g7b](https://certs.duolingo.com/7yx74g7b)

30/11/2021 – 31/12/2021

**PYTHON DATA STRUCTURES** University of Michigan | Coursera

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- Python Syntax And Semantics
- Data Structure
- Tuple
- Python Programming

**Website** [coursera.org/verify/NVWCTJZ25QKY](https://coursera.org/verify/NVWCTJZ25QKY)

16/01/2022

**DEEP LEARNING SPECIALIZATION** Coursera | DeepLearning.AI

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- Artificial Neural Network
- Convolutional Neural Network
- Tensorflow
- Recurrent Neural Network
- Transformers
- Backpropagation
- Deep Learning
- Python Programming
- Neural Network Architecture
- Mathematical Optimization
- hyperparameter tuning
- Inductive Transfer

31/12/2021 – CURRENT

**ASK QUESTIONS TO MAKE DATA-DRIVEN DECISIONS** Coursera | Google

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- Big Data
- Data Management
- Data Analysis
- Cloud Computing
- Distributed Computing Architecture
- Data Analysis Software
- Data Visualization

**Website** <https://www.coursera.org/>

09/12/2021 – CURRENT

**APPLIED DATA SCIENCE WITH PYTHON SPECIALIZATION** University of Michigan | Coursera

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**Website** <https://www.coursera.org/>

16/10/2019 – 06/11/2019 tehran, Iran

**CERTIFICATION OF ATTENDANCE (MATLAB SOFTWARE)**

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**Address** Sharif University of Technology Azadi Ave Tehran, Iran, tehran, Iran | **Website** <http://www.en.sharif.edu/>

## ● **DIGITAL SKILLS**

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Programmin language PYTHON | Research Methodologies | R&D | Team-work oriented | Decision-making | Python OOP | data visualization | GIT & Github | SQL (MySQL) | Big data analysis | Tensor Flow | Regex | NumPy, Pandas, Scikit-learn, Matplotlib, Seaborn, NLTK, NetworkX, SciPy, TensorFlow | Natural Language Processing (NLP) | machine learning | Deep Learning | Computer Vlsion | Image Processing, Image Analysis, Image Segmentation | AI

## ● LANGUAGE SKILLS

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Mother tongue(s): **PERSIAN**

Other language(s):

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken production	Spoken interaction	
<b>ENGLISH</b>	C1	B2	C1	C1	B2
<b>ITALIAN</b>	A1	A1	A1	A1	A1

*Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user*

## ● ADDITIONAL INFORMATION

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### PROJECTS

01/09/2022 – 30/06/2023

#### Scafo4.0

- Companies involved: FOS, Vega Research Lab, Cetena (all working for Fincantieri)
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  - Contributed to enhancing the quality control process in naval manufacturing by providing a reliable and efficient AI-based solution for deformation detection.

**Text mining from Twitter** The text mining project focused on extracting valuable insights and patterns from Twitter data. The objective was to harness the power of natural language processing (NLP) techniques to analyze and understand the vast amount of textual information shared on the social media platform. By employing advanced algorithms and machine learning models, the project aimed to extract meaningful information, sentiment analysis, and trend identification from Twitter data.

#### Data Visualisation on NISPUF17

#### Movie Recommendations on Netflix