

# Salim Benhamadi

## Machine Learning Engineer

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🌐 [linkedin.com/in/salimbenhamadi/](https://www.linkedin.com/in/salimbenhamadi/)    🏆 [kaggle.com/salimhamadi07](https://www.kaggle.com/salimhamadi07)    🔗 [salim-benhamadi.github.io/](https://salim-benhamadi.github.io/)

### EDUCATION

<b>Master's Degree ICT Internet and Multimedia Engineering</b> , <i>Università degli studi di padova (UNIPD)</i> ⓘ • <b>Principal coursework</b> : Computer Vision, Internet, Game Theory, Internet of Things and Smart Cities, Natural Language Processing,	10/2023 – 02/2025 Padova, Italy
<b>Erasmus+ Student Mobility</b> , <i>Università degli studi di padova (UNIPD)</i> ⓘ • <b>Principal coursework</b> : Machine Learning, Neural Networks and Deep Learning, Reinforcement Learning, Human data analytics, Scientific Computing with Python.	09/2022 – 07/2023 Padova, Italy
<b>ICT Engineer's degree</b> , <i>Higher School of Communications of Tunis (SUPCOM)</i> ⓘ • <b>Principal coursework</b> : Probability, Statistical inference, Algorithmic Foundations of Optimization, Cloud, Big Data, Data Science, Artificial Intelligence.	09/2020 – 07/2023 Ariana, Tunisia
<b>Pre-engineering studies in Mathematics and Physics</b> , <i>Preparatory Institute For Engineering Studies of Nabeul (IPEIN)</i> ⓘ	09/2018 – 07/2020 Nabeul, Tunisia

### WORK EXPERIENCE

<b>Machine Learning Engineer - Research &amp; Development</b> , <i>Saturnalia</i> ⓘ • Conducted research on crop damage detection using satellite imagery data to develop automated agricultural monitoring solutions <b>Keywords</b> : Computer Vision, Remote Sensing, Geospatial Analysis, Crop Health Assessment	06/2025 – Present Pavia, Italy
<b>Master Thesis Intern</b> , <i>Infineon Technologies</i> ⓘ • Developed an image clustering tool with anomaly detection, significantly reducing data analysis and processing time. • Automated workflows by creating a tool for automatic report generation, improving efficiency and accuracy. • Created a Python library to facilitate the reading and analysis of production data. <b>Keywords</b> : Unsupervised Learning, Anomaly Detection, Dimensionality Reduction, Workflow Automation, Report Generation.	02/2023 – 06/2025 Padova, Italy
<b>Research Trainee</b> , <i>University Of Padova</i> • Analyzed head and hand motion data, along with traffic data from VR headset experiments, to predict and identify users across different VR Games. • Conducted comprehensive data preprocessing and feature engineering, achieving model accuracy 95%. <b>Keywords</b> : Supervised Learning, User Identification, Data Preprocessing, Feature Engineering.	10/2023 – 10/2024 Padova, Italy
<b>Data Scientist, Intern</b> , <i>PROROB SRL</i> ⓘ • Analyzed large sets of manufacturing data using Python to identify patterns and trends. • Performed predictive analysis and anomaly detection on Key Performance Indicators (KPIs), identifying potential issues and reducing downtime by 10%. <b>Keywords</b> : Multivariate Statistics, Exploratory Data Analysis, Time Series Analysis, Time Series Forecasting, Anomaly Detection.	02/2023 – 07/2023 Vicenza, Italy
<b>Machine Learning Engineer, Intern</b> , <i>Plxemantic</i> ⓘ • Built an automated system for extracting data from financial statement using OCR. • Prevented manual data entry errors with high quality data extraction on balance sheets. <b>Keywords</b> : Python, Tensorflow, OpenCV, OCR, PaddleOCR, Layoutparser	06/2022 – 08/2022 Tunis, Tunisia
<b>Software Developer, Intern</b> , <i>eDonec</i> ⓘ • Participated in planning, developing, testing, and maintaining an eCommerce website.. • Maintained quality assurance through code testing and cross-browser testing. <b>Leveraged Knowledge</b> : React, CSS/HTML, Redux, Jest unit testing, MongoDB, Bootstrap, NodeJS, ExpressJS	07/2021 – 08/2022 Tunis, Tunisia

### PUBLICATIONS

<b>Benhamadi, S., Pierobon, M., Cassetta, G., &amp; Santiroso, S. (2025).</b> "Automated Semiconductor Test Data Analysis Using a Hybrid Deep Learning Pipeline", Tallinn, Estonia, 5th European Automotive Reliability, Test and Safety Workshop (eARTS)	04/2025
<b>Benhamadi, S., Caluseriu, A.A., Cassetta, G., D'Acunzo, M., &amp; Neagoe, M.S. (2025).</b> "Optimization of Test Insertions in Semiconductor Manufacturing Using Reinforcement Learning", Tallinn, Estonia, 5th European Automotive Reliability, Test and Safety Workshop (eARTS)	04/2025
<b>Baldoni, S., Benhamadi, S., Chiariotti, F., Zorzi, M., &amp; Battisti, F. (2025).</b> "Movement- and Traffic-based User Identification in Commercial Virtual Reality Applications: Threats and Opportunities", Saint-Malo, France., IEEE VR 2025 ⓘ	01/2025

### AWARDS

<b>Best Inclusion Project at FastwebAI Hackathon</b> , <i>Fastweb + Vodafone</i> ⓘ	09/2025
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2nd place at AI Meets Medicine: Collaborative Solutions for the Future of Healthcare, Elty DaVinci Healthcare 	09/2025
Ranked 19/365 in Microsoft Learn Location Mention Recognition Challenge, Microsoft, HBKU	08/2024
Ranked 18/514 in AirQo African Air Quality Prediction Challenge, AirQo	06/2024
2nd prize at AI Hackathon 3.0, IEEE ENSI Student Branch	06/2022
2nd prize at ML Olympiad - Preserving North African Culture, Google Developers	03/2022
2nd prize at GO Data Science (GODS), IEEE ENSI Student Branch	02/2022
1st prize at DevFest21, Google Developer Groups Carthage	02/2022
3rd prize at a virtual Blockchain hackathon, Decentralize impact & Dar Blockchain	01/2022

SKILLS

<b>Programming</b> (Proficient) : Python, JavaScript (Familiar) : C, C++	<b>Data Tools</b> TensorFlow, PyTorch, Keras, FastAI, Scikit-Learn, Numpy, Pandas, Matplotlib, Seaborn,	<b>Machine Learning</b> Supervised & Unsupervised Learning (Regression, Classification, Clustering, Anomaly Detection), Deep Learning (CNN, RNN, ANN, Transformers), NLP & Large Language Models (Text Classification, Named Entity Recognition, Embeddings), Reinforcement Learning, Optimization (Gradient Descent, Hyperparameter Tuning)
<b>Database</b> MySQL, SQL Server, Firebase, MongoDB	<b>Soft Skills</b> Communication, Problem Solving, Teamwork, Attention to Detail	

LANGUAGES

Arabic — Native (C2) • English — Full professional proficiency (C1), TOEFL 85/120 point (2023) • French — Limited working proficiency (B1)