Pooya Nasiri

A.I. Engineer

Summary

AI and Machine Learning Engineer with 5+ years of experience developing innovative AI solutions and software applications. Skilled in Python, TensorFlow, and cross-platform development (C, C++, C#, Swift). Proven track record of optimizing performance and delivering impactful AI-driven products. Completed a Master's in AI at the Unipd. Seeking to contribute to a dynamic company as an AI Engineer.

Core Skills

- **Programming Languages:** Python, C, C++, C#, Java, Swift, ...
- **AI/ML Frameworks:** TensorFlow, PyTorch, Keras, Pandas, Scikit-learn
- **Software Dev.:** Windows, MacOS, Secure Auth. (FIDO, PKI), REST APIs
- **Databases:** SQL, MySQL, MongoDB, PostgreSQL, NoSQL, ...
- **Microcontroller Dev.:** Arduino, Atmel, ESP, STM32, Raspberry Pi, PIC
- **Tools & Platforms:** Git, GitLab, Docker, AWS, Azure, GCP, CI/CD, ...

Work Experience

- **A.I. Engineer, Javis SRL** *(Remote, Italy)* *2024/03 - 2024/12*
  Intern in AI and ML projects, developing intelligent systems for logistics optimization using Python and deep learning frameworks.
  Skills: Classic AI, Deep Learning, Time Series, Machine learning
- **Freelance Software Dev.** *(Hybrid, Wordwide)* *2009/01 - 2022/09*
  Engineered various software solutions and AI/ML/DL research projects.
  Skills: OOP, AI, Deep Learning, Python, C++, C#, WPF
- **Software Dev., Vancosys Inc.** *(Remote, Canada)* *2021/11 - 2022/10*
  Designed cross-platform apps for IDmelon's authentication solutions using C#, Swift, and cryptographic protocols (FIDO, PKI, OpenSSL).
  Skills: Secure Authentication, Swift, Cryptography, FIDO
- **Senior Software Dev., Azar Liopad** *(Hybrid)* *2020/08 - 2022/09*
  Full-stack developer for smart firefighting and safety equipment software using C# and Visual Studio, with serial and client/server communication.
  Skills: C#, WPF, .NET, Visual Studio
- **Hardware Specialist, Tajhiz Teb** *(on-site)* *2019/05 - 2021/03*
  Led R&D in hardware for smart medical gadgets, including mobile ECG devices. *Skills:* IoT, Arduino, ARM, client/server programming, PCB Design

Contact Info

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Languages

- **Italian**: B1-*Intermediate*
- **English**: C1-*Advanced*
- **Persian**: *Native*

Interests

- **Deep Learning**: CNN, DNN, RNN, LLM, NLP, Transformers
- **Computer Vision**: OpenCV
- **Machine Learning**: Optimization, OR
- **Data Science**: Data mining, statistical analysis, predictive and generative modeling

Soft Skills

- **Team Collaboration**
- **Agile Management**
- **Problem Solving**
- **Technical Communication**
- **Mentorship**
- **Adaptability**

Highlight Projects

- **Bone Age Prediction:** Developed a deep learning model to predict age from X-ray images of hand bones using Shallow, ResNet50, and InceptionV4. Achieved an MAE of 10 months using InceptionV4. The preprocessing involved CLAHE and channel reduction, and Google MediaPipe was utilized for hand detection and cropping. *(Skills: CNN, Deep Learning, TensorFlow, NumPy, Computer Vision, Python)*
- **Grayscale to RGB Image using GAN:** Built and fine-tuned a GAN model for image colorization. Realistic results achieved using Python and TensorFlow. *(Skills: GANs, Deep Learning, TensorFlow)*
- **Human Voice Gender Detector:** Built a deep learning model to recognize gender and age from real-time speech using TensorFlow and RNN/CNN with an accuracy of 84% in development. *(Skills: Time Series, Deep Learning, Machine Learning, TensorFlow, Python)*
- **Weather Classification:** Architected a weather classification model using CNNs with TensorFlow, integrating diverse weather datasets, reaching an accuracy of 99.9%. *(Skills: CNN, TensorFlow, Python)*
- **A.I. Supply Chain Management:** Devised an AI-based system for supply chain optimization using heuristic algorithms and C#. *(Skills: AI, C#, Optimization)*
- **3D Data Processing:** Implemented the SGM algorithm in C++ for dense disparity maps from stereo images using OpenCV. Evaluated accuracy with MSE. *(Skills: OpenCV, C++, Computer Vision)*
- **Robot Operating System (ROS) Project:** Initiated intelligent robotic applications using ROS and C++ for Tiago robot simulations, focusing on navigation and control. *(Skills: C++, ROS, Linux)*
- **Few-View Object Reconstruction:** Created a reconstruction model with unknown categories and camera poses using OpenCV. *(Skills: 3D Data Processing, OpenCV)*
- **Image Segmentation:** Designed an interactive image segmentation tool using OpenCV in C++ for real-time image and video processing. *(Skills: OpenCV, C++, Image Processing, Computer Vision)*
- **A.I. Algorithm Development:** Maze, Tower of Hanoi, Knight's Tour, 8 Puzzle, 2048, and Navigation systems. *(Skills:A.I., Algorithm Design, Python, Optimization)*

Education

- **Università degli Studi di Padova**
  Master of Science (MSc), Computer Engineering - Artificial Intelligence *2022/09 - 2025/10*
  Skills: Machine Learning, Deep Learning, Computer Vision, AI.
- **Azad University (IAU)**
  Bachelor of Science (BSc), Computer Software Engineering *2015/09 - 2019/02*
  Skills: OOP, .NET, C#, A.I., Java — *Activities:* Teaching Assistant, Quantum computers
- **Tehran Institute of Technology**
  Engineer's Degree, Microcontroller *2012/10 - 2015/01*
  Skills: IoT, ARM Architecture, AVR — *Activities:* AVR/ARM programming in C and Assembly
- **Students' Science and Research Institute**
  Computer Programming Course *2010/10 - 2013/01*
  Skills: OOP, C, C++, C#, Java — *Activities:* RoboCup Programming Competitions

Certifications

- **Python for Machine Learning** *2021/11*
- **Machine Learning from Basic to Advanced** *2021/10*
- **Artificial Intelligence (AI) in the classroom** *2021/10*
- **Cutting-Edge AI: Deep Reinforcement Learning in Python** *2021/09*
- **Learn Machine learning & AI (Including 3 Projects)** *2021/08*
- **C# Console and Windows Forms Development - LINQ & ADO.NET** *2021/07*