MONTEIRO DEL PRETE

Email   LinkedIn   GitHub   Website

WORK EXPERIENCE

Software Engineer @ Teoresi S.p.A.   **03/2023 – present**
C++, Qt, React   *Naples, Italy*
- Developed desktop application for data diagnosis with real-time system update <1s for 500 samples.
- Increased the communication security of Jitsi Meet by 5% by implementing Quantum Key Distribution.
- Increased productivity of pharma robots by 20% by implementing a custom algorithm for the Pallet Loading Problem.

Software Engineer @ Teoresi S.p.A.   **09/2020 – 11/2020**
Python, AWS   *Naples, Italy*
- Reduced traffic congestions by designing and developing a communication network for cloud-based video processing for road signs detection and recognition.
- Integrated Haar Cascade Classifier in AWS Lambda for cloud processing.
- Integrated AWS S3 for storage and AWS Iot Core for communication.

TECHNICAL SKILLS

Programming Languages C++, C, Python
Databases Postgresql
Frameworks Qt 6.5 LTS, Tensorflow, Keras
Devops Technologies Docker, Git, CMake, CI/CD
Operating Systems Linux based, Ubuntu
Data Structures and Algorithms
Deep Learning and Machine Learning with interest in Computer Vision (CNN) and Reinforcement Learning
I have worked in different fields, I can adapt myself and learn quickly while achieving the expected results

EDUCATION

University of Naples "Federico II"   **12/2020 – 07/2023**
Master of Science in Artificial Intelligence 110/110 cum Laude   *Naples, Italy*

University of Naples "Federico II"   **09/2017 – 12/2020**
Bachelor's Degree in Computer Science 110/110   *Naples, Italy*

PROJECTS

Proximal Humerus Fractures (PHFs) Recognition *Python, Tensorflow*   **03/2023**
- Developed a deep learning model for PHFs recognition (i.e. segmentation and labeling).
- Increased the energy consumption for training by implementing hybrid (2D/3D) deep learning model.
- Implemented the Triplanar U-Net (Sundaresana et al.)

Real-time Hand Gesture Recognition *Python, Tensorflow*   **01/2023**
- Developed a real-time system for hand gesture recognition.
- Integrated MediaPipe to work with hand skeleton model.
- Implemented homographic transformation and Hough circle detection heuristic classification.

Self-Driving Car with Reinforcement Learning *C#, Unity*   **09/2022**
- Self-Driving Car with Deep Reinforcement Learning algorithms in Unity-MLAgents environment.
- Compared two Deep Reinforcement Learning algorithms: PPO and SAC.

Inference engine for Description Logics *Java, OWL API*   **02/2022**
- Inference engine based on Tableau method for satisfiability of a concept in ALC description logic.

CERTIFICATIONS

British Council IELTS   **01/07/2022**
English Student - 7.0/9.0 Score   *Naples, Italy (IT)*

Kaplan International Languages   **06/08/2018 – 24/08/2018**
English Student - B2 Level   *Santa Barbara, California (US)*