Salvatore Amodio

Email | Phone | Linkedin | Github

Work Experience

Software Engineer, Teoresi SpA – Naples, IT 01/2024 – present

Resource Management Tool *Java, Spring Boot, MySQL*

- Developed back-end for resource management, delivering real-time weekly workload visualization with commitment hours across multiple projects
- Optimized SQL queries and back-end logic to ensure HTTP response times <2s even with large data sets

Reprocessing Unit – Autonomous Driving Evaluation *Java, Spring Boot, Docker, Kubernetes*

- Joined a team at Stellantis focused on validating algorithm performance
- Contributed to workflows ensuring regression-free improvements across sensor and session changes

Skills

Programming languages: C#, Java, Python

ML/AI: Keras, MATLAB, OpenCV, Scikit-learn, TensorFlow

Operating Systems: Linux (Ubuntu)

Back-end technologies: Elastic Beanstalk, MySQL, RDS, S3, Spring Boot

DevOps technologies: Confluence, Docker, Git, Jira

Languages: English (B2 - Upper-Intermediate), Italian (Native), Spanish (B1 - Intermediate)

Education

Federico II University, Master of Science in Artificial Intelligence 01/2021 – 02/2024

- **Graduation Grade:** 110/110 cum Laude (GPA: 4.0/4.0) *Naples, Italy*
- **Key Coursework:** Machine Learning, Natural Language Processing, Advanced Databases

Rovira i Virgili University, Scholarship Recipient 09/2022 – 02/2023

- Awarded the Erasmus+ Scholarship for international study *Tarragona, Spain*
- **Key Coursework:** Computer Vision

Federico II University, Bachelor of Science in Computer Science 09/2017 – 12/2020

- **Graduation Grade:** 110/110 (GPA: 4.0/4.0) *Naples, Italy*
- **Key Coursework:** Data Structures and Algorithms, Software Engineering, Databases I

Projects

CNN-based transcoding model from VIS to NIR iris images *python, Tensorflow* 04/2023 – 02/2024

- Developed deep learning models using pix2pix and U-Net architectures for image-to-image translation
- Improved segmentation and feature extraction, boosting recognition accuracy by 71%

Breast Cancer Detection Using ULDP *MATLAB* 09/2022 – 01/2023

- Implemented the UDPR descriptor from scratch for breast tissues in mammograms
- Integrated UDPR into a CAD system for classifying masses and normal breast tissue

Autonomous Driving Agent with Reinforcement Learning *C#, Unity* 05/2022 – 09/2022

- Developed an autonomous agent based on RL using PPO and SAC algorithms to navigate a race track
- Integrated raycasting sensors for collision avoidance and checkpoint detection

CNN from scratch for image classification *python* 03/2021 – 06/2021

- Built a CNN for MNIST digit classification with custom layers, activation functions, and error optimization
- Achieved an F1-score of 85% during evaluation