DOMIZIANO SCARCELLI

Software Engineer

📅 18/01/2000   ✉️ scarcelli.domiziano@gmail.com
📍 Rome, Italy   ⦿ github.com/DomizianoScarcelli
🌐 domiziano.netlify.app   🔗 linkedin.com/in/domiziano-scarcelli

SUMMARY

Passionate **Software Engineer** specializing in **Deep Learning**, with a strong interest in **Web Development** and **Cloud Computing**. Committed to continuous learning and driven by the desire to explore new technologies and ideas.

SKILLS

Languages: Python, Typescript, Java, HTML, CSS, SQL, Swift.

Technologies: Git, Docker, AWS, PySpark, PyTorch, React, Express, Prisma, Tailwind, React Native, Terraform.

EDUCATION

9/2022 - *3/2025*	**Master's Degree in Computer Science (in English)** Current GPA: 29.3/30	**University of Rome La Sapienza**
9/2018 - 3/2022	**Bachelor's Degree in Computer Science** Mark: 104 / 110	**University of Rome La Sapienza**

SELECTED PROJECTS

Deep Learning   **Multi Latent Autoregressive Source Separation**   **github.com/DomizianoScarcelli/mlass**
Extended the method proposed in the **Latent Autoregressive Source Separation** paper by Postolache et al., applying **belief propagation** over a factor graph and a **probabilistic extractor**. This allowed separation of multiple sources with reduced memory complexity.

Deep Learning   **Multimodal Sentiment Analysis**   **github.com/DomizianoScarcelli/multimodal-advertisement-sentiment-analysis**
Developed a **multimodal** deep learning model to perform **sentiment analysis** by integrating data from multiple sources. The model analyzes **facial expressions**, **voice tonality**, and **Photoplethysmogram (PPG) signals**, which are extracted from video using **remote photoplethysmography (rPPG)**, to effectively assess emotional responses.

Deep Learning   **Skin Lesion Classification**   **github.com/DomizianoScarcellli/skin-lesion-classification**
Built models for classifying 7 skin lesion types from the **HAM10K** dataset using **PyTorch**, **StyleGAN** for synthetic data, and **SAM** for image segmentation. Used **CNNs** and **ViTs** for classification. Re-implemented and optimized paper solutions.

Big Data   **Spotify Million Playlist Challenge**   **github.com/DomizianoScarcelli/spotify-recommender**
Implemented and compared three recommender systems using **PySpark** on a dataset of 100K playlists and 600K songs. Re-implemented the 2nd place solution from the challenge, converting it from TensorFlow to **PyTorch** and using **Petastorm** for data loading.

Cloud Computing   **VoiceFork**   **github.com/DomizianoScarcelli/voicefork**
Built a mobile app clone of **TheFork** using **React Native** for frontend and a microservice structure with Express and FastAPI as backend, deployed on **AWS** with **Docker**, **ECS** with **Fargate**, and **Terraform** as IaC. Tested scalability with **k6**.

EXPERIENCE

4/2022 – 5/2024   **Private Lessons**   **Autonomous**
· Provided private lessons on Python, **SQL**, and **Database Design** to both University and High School students.

9/2021 – 3/2022   **Internship at Gamification Lab**   **Gamification Lab, La Sapienza**
· Worked for 3 months in a **team of 4 people** for the development of an **Android Application** called **Generocity** that allows the users to find a parking spot.
· My job was to **design** and **code** some parts of the UI, interacting also with a team member on the **backend** to integrate it with the frontend. All the work was done inside **Android Studio** using **Java**.

LANGUAGES

English - B2, **Italian** - native

SELECTED COURSES

Deep Learning and Applied AI - 30L/30, **Big Data** - 30L/30, **Distributed Systems** - 30/30