ANDREA PETRETI

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Italy

I got my bachelor degree in Applied Informatics at Urbino University; later I decided to deepen my studies with a master degree in Engineering and Computer Science at the University of Bologna (at Cesena). During this last path I decided to focus on the world of software engineering; I love the quality of the code. The course of study also allowed me to acquire skills related to Computer Vision both through traditional techniques and through machine learning. I'm particularly passionate about the world related to IoT, robotics and artificial intelligence. I enjoy any challenge related to the IT world.

WORK EXPERIENCE

Software Engineer
PagoPA s.p.a. | July 2022 - now

Work on the design and development of microservice architectures.

Android and Flutter Developer
Sysdata s.p.a | May 2021 - July 2022

Android and Flutter developer. I have experience in both native and hybrid development with Flutter. The main technologies and languages I use are Kotlin with the new Compose framework and Flutter in mobile.

Full Stack Developer
Green Dreams (Startup) | 6 month 2018 - 2018

Full stack developer for industry related embedded devices 4.0. Technologies based mainly on C#/Java/C++. Management of small projects in collaboration with Loccioni

PROJECTS

Home Assistant Tapo P100 Integration
Open Source | Home Automation

With 700+ starts, tapo p100 is an integration for controlling smart plugs and smart lights of the Tapo line through the well-known home automation assistant Home Assistant. Made mainly in Python, this is the main integration used in the Home Assistant community.

Beaesthetic Agenda
Microservices | Backend

Application and backend for appointment management of a beauty center. The system allows to manage clients, appointments and loyalty cards. It is also able to send notifications via Sms, Whatsapp and in the future push notification to customers to remind them of an appointment.

IntelliSerra
Open Source | University

Framework developed in Scala which allows managing smart greenhouse. It allows defining smart greenhouse through sensors and actuators and supports an event-based actuation rules system. The main technologies used in this project are Scala, Akka and Prolog, and it developed with Marta Luffarelli, Simone Letizi and Ylenia Battistini.

Scanbage
Open Source | University

A powerful web app to recognize types of garbage by photo or barcode through convolutional network (CNN Machine Learning). It is a kind of social based on rewards unlocked through the correct differentiation of garbage. The project has been realized in a university context with Gianluca Aguzzi, Marta Luffarelli and Simone Letizi.

Fluvium
Open Source | University

A full stack system for monitoring river rise levels. The system has been developed starting from embedded components (ESP32) up to the web/cloud layer based on AWS. The project is realized in university context with Gianluca Aguzzi.

Face Sketch Recognition - CBIR
Computer Vision | University

University project aimed at finding faces based on the similarity of sketches obtained manually or through identikit software.

Subspedia
Android App

Mobile application for the subtitling website Subspedia (now discontinued).

EDUCATION

Master's Degree in Computer Science and Software Engineering
Bologna University (Cesena) \\ 110/110 with honors
2021

Bachelor's Degree in Computer Science
Urbino University \\ 108/110
2018

Graduation in Computer Science
ITIS E. Mattei Urbino \\ 86/100
2015

SKILLS

Technical

Kubernetes

Java/Kotlin/Scala

DevOps/Gradle/Continous Integration (like Jenkins, Github Actions)

Azure Cloud

Domain Driven Design

Functional and Reactive Programming

Computer Vision Skills (OpenCV + Machine Learning CNN)

Android

Flutter(Dart)

C/C++

JavaScript/Vue

Python/Keras

Node.js

Professional

Team player

Good time management

Proactive Learning

LANGUAGES

Italian (Native)

English (Professional)

PUBLICATIONS

Encouraging users in waste sorting using deep neural networks and gamification

Association of Computer Machinery | Sep 2021

This paper presents ScanBage, a web application designed and developed to support users in separating waste collection. It exploits two machine learning algorithms to automatically classify garbage categories and it employs Gamification elements with the aim of increasing user involvement.
https://dl.acm.org/doi/abs/10.1145/3462203.3477056

INTERESTS

Home automation

Maker

Ski

Travelling

Technology