

ARCANGELO ALBERICO

Full Stack Developer | Data Engineer | ML & AI Engineer

Age: 29

📍 Bologna

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EXPERIENCE

Software Engineer & Data Engineer

Iconconsulting S.p.A.

📅 Nov 2021 – Ongoing

📍 Bologna, Italy

- Development of an agent-based system for natural language interaction with PowerBI dashboards. Built on OpenWebUI, featuring visual components using RAG, query translation for reporting, and a semantic PowerBI model with QnA visuals. Includes advanced query agent using knowledge base semantics for automatic DAX code generation.
- Design and develop full-stack web applications using FastAPI, Python, SQL, and Angular for analyzing and classifying sales of manufacturing products based on historical data, enabling data-driven decision-making. Deployed the web application with a CI/CD on AWS Elastic Beanstalk, ensuring secure and scalable hosting.
- Develop a middleware system for seamless communication and data synchronization between two systems, utilizing AWS SQS for message queuing, AWS Lambda functions for event-driven computation, and AWS DynamoDB for storing and enriching data based on the middle-ware's information. Used Terraform for provisioning and managing the AWS infrastructure as code, ensuring consistent and reproducible deployments.

Internship

Engineering Ingegneria Informatica S.p.A

📅 April 2017 – Sept 2017

📍 Napoli, Italy

Develop Smartroad, a web application using Angular as client-side and Spring as server-side frameworks, which calculates incidentality indices before and after a maintenance work on a road section.

EDUCATION

M.Sc. in Artificial Intelligence

Alma Mater Studiorum – Università di Bologna

📅 Oct 2019 – Oct 2021

Thesis title: A Neurosymbolic Framework for Markov Logic Networks

Mark: 110/110 cum laude

Artificial Intelligence: Algorithms and Applications

Nankai University, China

📅 July 2021

Online Summer School Program focused on Machine Vision and Medical Robotics

B.Sc. in Computer Engineering

Università degli Studi di Salerno

📅 Sept 2014 – Sept 2017

Thesis title: Sviluppo di una Web Application per il calcolo degli indici di incidentalità di tratte stradali

Mark: 110/110 cum laude

High School Diploma

Liceo Scientifico Federico Quercia, Marcianise (CE)

📅 Sept 2009 – July 2014

Mark: 100/100

CERTIFICATIONS

AWS Certified Developer - Associate

PROJECTS

I realized several projects during my university career or free time available on my Github. Among them:

- PyTorch implementation of a neurosymbolic framework that integrates neural networks with Markov Logic Networks.
- A NetLogo implementation of the SEIQR epidemiological model for studying the evolution of the COVID-19 epidemic.
- An object detection systems to identify single and multiple instances of products in given scene images.
- Text mining analysis on clickbait titles, aiming to identify the causes and patterns that make a title a clickbait.
- Solving the Perfect Weighted Packing (PWP) problem, which involves packing a set of rectangles into a strip without overlapping.

PERSONAL SKILLS

Team work, perseverance, problem solving, communication, critical thinking

TECHNICAL SKILLS

Languages: Python JavaScript R C Java C# Scala Prolog SQL

HTML PHP CSS LaTeX

Artificial Intelligence: Pytorch Tensorflow

LLM RAG Agents

Web Development: FastAPI Angular

React .NET

Cloud Computing: AWS Services Terraform

LANGUAGES

Italian - Mother tongue
English - IELTS 7.0 (C1)

