

Leon Doungala

Al Engineer Experienced

Portfolio: github.com/LeonDoungala22 | https://leondoungala22.github.io

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SKILLS

• Generative AI & LLMs
• Retrieval-Augmented Generation (RAG)
• Chat Search Systems & Autonomous Agents IA Integration

• Machine Learning & Deep Learning • Python & Predictive Modeling & Data Science • Research & Development

EDUCATION

Rome Business School, Rome, Italy - University of Valencia, Valencia, Spain
 Double Master's in Data Science

eCampus University, Come, Italy
 Master of Science in Computer Engineering and Automation, Artificial Intelligence

• Ferrara University, Ferrara, Italy Sept 2020

Bachelor's of Science in Electronic and Computer Engineering

PROFESSIONAL EXPERIENCE

Al Engineer / Data Scientist, Experienced Consultant

Juin 2025 - Present

Amaris Consulting , Milan, Italy

- Developed and collaborated with teams on an AI agent assistant for smart devices and EV charging support for client support service using **LLM, RAG (Langchain)**.
- Processed 64M+ telemetry sessions applying clustering, Isolation Forest, and anomaly detection techniques.
- Built advanced AI/ML pipelines and an RAG agent in R&D to enhance predictive analytics and insights.

AI / ML and Data Science Engineer

Mar 2024 - Juin 2025

People Lab , Milan, Italy

- Developed AI solutions for **300+ clinics** and companies, including a RAG-based Clinical Semantic Search Engine and an **ATS** system for HR recruiters supporting **200+ companies**.
- Engineered scalable multimodal AI systems for semantic search, autonomous agents, and workflow automation, driving
 innovation in healthcare and industry.
- Designed AI projects with **Generative AI, RAG, Transfer Learning, and LLMs**, building predictive systems and scalable solutions using ML, DL, MongoDB, MySQL, Azure Cosmos, Python, and Vector Databases, **Langchain**, **Flask**, **Fast api**...

Software Developer | Data Scientist

Apr 2022 – Dec 2023

Italian Stock Exchange (Euronext Group) , Milan, Italy

- Developed and maintained software applications, optimized SQL Data Marts (Workbench, Athena), and automated processes with Python.
- Collaborated within agile teams, managed AWS data ingestion (Glue, Python Spark), and enhanced machine learning models.
- Applied data science techniques to support decision-making and drive actionable insights.

Developer Analyst Salesforce

Jun 2020 - Dec 2021

Lutech group , Milan, Italy

Salesforce: Skilled in development, automation, deployment, error analysis, Apex, VisualForce, and data management.

HCM Technical Consultant - Intern

Sep 2019 – Feb 2020

Oracle , Milan, Italy

 Gained hands-on experience in Oracle SQL, Fusion Reporting, BI, integrations, HCM cloud (BI Publisher, OTBI, HCM extracts), web services, and Taleo Client

LANGUAGES

• French - Native (C2 level)

Italian - Proficiency (C1 level)

English - Intermediate (B2 level)

TECHNICAL PROFICIENCIES

- Programming Languages: Python, Java, SQL, Shell
- Libraries & Frameworks: Scikit-learn ,TensorFlow, LangChain, Pandas, Flask
- APIs & AI Models: OpenAI API, Anthropic API, LLM integrations, RESt API's
- Web Development: HTML, CSS, JavaScript, Flask

- Databases: MongoDB, MySQL, Postgresql
- Cloud: AWS, Azure, Salesforce, Elasticsearch
- Tools: Git, Docker, Tableau, Jupyter Notebook, GitHub
- AI Expertise: LLMs, AI Agents , RAG, Predictive modeling

Highlighted Projects

OneclickMedical: Multimodal Virtual Doctor Al Assistant API, Swagger, Documentation and web app.

- **Description**: The AI Health Assistant is an AI system designed to assist individuals by providing helpful, reassuring, and "medically" sound guidance (screening) based on their symptoms, appointments by ai assistant.
- **Key Features:** Dynamic medical data retrieval using RAG langchain , Saas API oriented , conversational flows, and task automation
- API's: Swagger , Web app (test): https://virtualdoctoronclickai.onrender.com/

Advanced Human Resources Analytics

- Description: Applied PCA and K-Means clustering for employee segmentation and HR data analytics.
- Algorithm: PCA, K-Means
- Repository Link: View Project

M.Sc. Thesis: Artificial Intelligence and Machine Learning Techniques for the Characterization and Prediction of Diabetes

Focus

Advanced AI and ML techniques, including **RAG**, **semantic search**, and **generative AI**, to address diabetes prediction and characterization challenges. Developed supervised (e.g., XGBoost, Random Forest) and unsupervised (e.g., K-Means, PCA) models for actionable medical insights.

Key Points:

- Designed integrative dashboards and **predictive analytics** for healthcare.
- Developed advanced **predictive models** for diabetes risk and characterization.
- Implemented LangChain and Vector Databases for RAG workflows and semantic search.
- Leveraged Generative AI for data augmentation and handling imbalanced datasets.

Repository (Private repo, access on request): Explore Thesis Repository

Exploring Customer Segmentation

- Description: Segmented customer data using clustering techniques for market analysis.
- Algorithm: K-Means
- Repository Link: <u>View Project on GitHub</u>

Heart Disease Prediction

- **Description:** Built predictive models to analyze heart disease risks using ML and NLP techniques.
- Algorithm: SVM. NLP
- Repository Link: View Project on GitHub

ATS System for CV Filtering and Job Matching

- **Description**: Developed an AI-powered ATS system to align candidates with job descriptions or assist HR with advanced semantic search. Utilized RAG, LangChain, Anthropic APIs, OpenAI, and Azure Cosmos DB for precision matching and intelligent filtering.
- Algorithm: Retrieval-Augmented Generation (RAG) with semantic search and conversational AI.
- Repository Link: View Project on GitHub

Collaboration and Articles:

- Collaboration: Elyon Advanced Diabetes Prediction Platform
 Collaborating with Professors Pratizia Vizza and Pierangelo Veltri (University of Calabria) on Elyon, an advanced diabetes prediction
 platform leveraging Generative Al, Machine Learning, and Data Science. Co-authoring a scientific article on the platform's methodology,
 results, and clinical applications.
- Publication: Advancing Credit Card Fraud Detection: Author of "Advancing Credit Card Fraud Detection through Machine Learning and <u>Data Science Techniques</u>" – Affidaty Blog (2025). The article details a reproducible ML pipeline for fraud detection, from data preprocessing and imbalance handling to model explainability, with an interactive notebook.

ADDITIONAL INFORMATION

- Driving License: Category B (with personal vehicle)
- Soft Skills: Problem-solving, communication, adaptability, teamwork, proactivity
- Interests: Al for Healthcare, bass guitar, running
- Recommendations: Available upon request
- Data Privacy: I consent to the processing of my personal data included in this CV in compliance with the GDPR (EU Regulation 2016/679).