Gianfranco Romani

Zurich, CH | P: +39 3343298838 | gianfranco.romani@outlook.it | LinkedIn | github.com/GianRomani | Website

WORK EXPERIENCE

SafEcho AG - Data Science Intern   Zurich (CH), May-Jul 2023
- Building a chatbot using Large Language Models and LangChain

AI Fellow at Pi School   Rome (IT), Mar-Apr 2023
- Selected to work with Translated on the usage of Large Language Models for an Adaptive Machine Translation task.
- I fine-tuned BLOOM and FlanT5 models using PEFT methods on multi-node and multi-GPU systems.
- I designed prompts to make the models follow consistency constraints for style, terminology, and domain when translating.

Organization of swimming events   Rome (IT), 2016 – 2018
- I organized several swimming events (1st-2nd-3rd Meeting Olgiata 20.12, 9th-10th Memorial Brunelleschi, and 1st Memorial Enzo Feoli), managing people and time with tight deadlines and 1000+ participants.
- I mainly worked on the management system to enter the event's participants and the results during the races.

EDUCATION

Sapienza Università di Roma   Rome (IT), Nov 2020 - Jan 2023
MSc in Engineering in Computer Science
Thesis: A Review on Topic Modeling Techniques and Experimental Evaluation in Analysis of Touristic Experience
Relevant Courses: Deep Learning, Machine Learning, Data Mining, Web Information Retrieval, Big Data Computing

Sapienza Università di Roma   Rome (IT), Oct 2017 - Oct 2020
BSc in Computer and Systems Engineering
Thesis: Application and optimization of YOLO tiny for object detection in Duckietown's environment

PROJECTS

Analysis of players' potential in a MOBA game using GCP   Jun 2022
- ETL process for Information Integration on several datasets to obtain a homogeneous database
- Designed and built a Data Warehouse system with Google BigQuery
- Reports and interactive dashboards with Google Data Studio
- Tools: Google Cloud Platform

Detection of persuasion techniques in memes (SemEval 2021 Task 6) (Link to the repository)   Mar 2022
- Implemented, compared, and improved several SOTA models for the tasks. The metrics used are micro and macro F1 scores.
- Detecting persuasion techniques in just the text
- Detecting the text spans where such techniques were used
- Detecting the techniques using both the text and the image
- Tools: Python, Hugging Face, Pytorch Lightning, and Google Colaboratory

Neural Search Engine (Link to the repository)   Feb 2022
- Designed and implemented a neural search engine for questions/answers from Stack Overflow
- Tools: Python, Hugging Face, Pytorch, Jina AI Framework, and Google Colaboratory

ADDITIONAL

Technical Skills:
- Python (Pytorch, Tensorflow, HuggingFace, LangChain, Scikit-learn, OpenCV, Matplotlib, Plotly, PySpark, numpy, pandas, spacy, gensim, wandb, FAISS)
- PostgreSQL, GCP, Firebase
- Java and Web Development (HTML, CSS, Javascript, jQuery, Ajax, Vue.js)
- Linux, Git, GitHub, Docker, MLOps, Hydra, Jira, Asana

Languages: Fluent in Italian and English

CERTIFICATION & TRAINING

MLOps essentials: Model development and integration:
- MLOps principles;
- ML requirements and life cycle;
- data pipelines and deployment

AI Workshop on Recommender Systems by cnvrg.io:
- Workshop on the usage of the cnvrg.io platform to build ML pipelines;
- AI Blueprints for Recommender Systems

Building Recommender systems using ML and AI:
- user-based and item-based collaborative filtering;
- scale deep learning-based recommender systems;
- build and test recommenders using the Surprise library;
- hybrid and ensemble methods;
- session-based recommendations with neural networks

ACTIVITIES

Red Cross Volunteer   2016

Master swimmer
Participated in the European Masters Swimming Championships 2022 held in Rome