LUCIA FABBRI

Passionate Data Science student with a background in Computer Science and Engineering and experience as a Freelance Web Developer. Enthusiastic about coding and data, I am always learning and taking on new challenges.

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EDUCATION

University of Pisa, Italy

2022-present

MSc Data Science and Business Informatics

• Main Coursework: Data Mining, Text Analytics, Decision Support Systems, Optimization, Statistics, Business Process Modeling

University of Madrid, Spain

2023-2024

Erasmus Exchange Semester

• Main Coursework: Open Data and Knowledge Graph, Adaptive Systems, Innovation and Entrepreneurship

University of Bologna, Cesena, Italy

2018-2021

BSc Computer Science and Engineering

• Main Coursework: Programming (OOP, Web, Mobile, Networks), Databases, Algorithms and Data Structures, Operating Systems

Liceo Torricelli-Ballardini, Faenza, Italy

2013-2018

Linguistic High School - EsaBac (Italian-French)

• Foreign Languages: English, French, German

PROJECTS

Data Mining and Emotion Classification

Master

Emotional speech and song classification on feature-based datasets and timeseries. Applied clustering (K-Means, DBSCAN, OPTICS, Hierarchical Clustering) and classification (Decision Trees, KNN, Naive Bayes, Logistic Regression, SVM, Neural Networks). Performed dimensionality reduction (PCA, MDS, IsoMap) and pattern mining with the Apriori algorithm. Used SHAP and LIME for model explainability.

Data Warehouse and Business Intelligence

Pisa, Master

 Designing and implementing a Data Warehouse to integrate sales and geography data using SQL Server and SSIS for data flow management. The ETL process, automated via SSIS, included data extraction, cleaning, and transformation with Python. A multidimensional cube was created in SSAS for analysis by time, product, and geography, with MDX queries providing insights. Power BI dashboards visualized trends and enabled actionable insights.

Text Analytics and Toxicity Detection

Pisa, Master

Performed text analysis to uncover key toxicity themes, such as cyberbullying, racism and
misogyny, using Latent Dirichlet Allocation (LDA). Developed and optimized classification
models, integrating both traditional machine learning algorithms (SVC, Naive Bayes, KNN)
and state-of-the-art neural network models (BERT, EmoRoBERTa) to improve emotion
detection and text comprehension accuracy.

Game Developing and Object-Oriented Programming Cesena, Bachelor

 Developed a game application following the MVC architectural pattern, managing player interactions and enemy behavior through well-structured classes and interfaces. Applied design patterns to enhance modularity, wrote automated tests with JUnit, and utilized Git for version control.

EXPERIENCE

Freelancer Web Developer, Italy

2015-present

• Designed and managed websites and ecommerce platforms for various industries and local businesses, primarily using WordPress and its associated tools and technologies.

Imola Informatica SpA, Remote, Italy

Apr-Nov 2021

Curricular Internship

• Analysis of OSINT reconnaissance tools, developing automated pipelines to integrate multiple tools and extract the maximum amount of data efficiently for various user requests.

SKILLS

Technical Python (pandas, numpy, scikitlearn, tensorflow, keras, pytorch, seaborn, matplotlib, nltk), ETL (SQL, SQL Management Studio, Azure Data Studio, PowerBI), Visual Studio, Git, R, Java

Web Development WordPress, CSS, HTML, PHP, JavaScript, Woocommerce, SEO, Canva Languages Italian (native), English (B2), French (B2), German (B2)

Interests Travel, hiking, cycling, volleyball, gym, cooking, animals