Federico Pirola



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Address: Bresso, Milan, Italia (20091)

WORK EXPERIENCE

01/10/2022 - 1/09/2023 - Milan, Italy

RESEARCH CONSULTANT – UNIVERSITY OF MILANO-BICOCCA

- Objective: improvement in state-of-the-art Automatic Speaker Diarization pipelines
- Master thesis on the same arguments

02/11/2020 - 25/12/2020 - Milan, Italy

INTERVIEWER – VVA MARKET RESEARCH

- English interview to manager of international corporates about customer experience with digital platform (app, platform, communication with developers)
- Report of interview
- De Briefing with the Client

EDUCATION AND TRAINING

01/11/2023 – Current - Milan, Italy PHD IN COMPUTER SCIENCE – UNIVERSITY OF MILANO-BICOCCA

Address Piazza dell'Ateneo nuovo 1, 20126, Milan, ItalyWebsite https://en.unimib.it/Field of Study Information and Communication technologiesResearch Project Artificial Intelligence for data and technology driven diagnoses and therapies

01/10/2021 – 20/10/2023 - Milan, Italy MASTER DEGREE IN DATA SCIENCE – UNIVERSITY OF MILANO-BICOCCA

Address Piazza dell'Ateneo nuovo 1, 20126, Milan, ItalyWebsite https://en.unimib.it/Field of Study Information and Communication technologiesFinal Grade 110/110 LaudeType of credits ECTSNumber of credits 120Thesis Automatic Speaker Diarization

01/10/2018 - 28/10/2021 - Milan, Italy

BACHELOR DEGREE IN STATISTICS AND INFORMATION MANAGEMENT – UNIVERSITY OF MILANO-BICOCCA

Address Piazza dell'Ateneo nuovo 1, 20126, Milan, ItalyWebsite https://en.unimib.it/Field of Study Statistics and EconomicsFinal Grade 110/110 LaudeType of credits ECTSNumber of credits 180Thesis Machine Learning and R applications of Data Mining algorithms

01/09/2013 – 01/07/2018 – Como, Italy HIGH SCHOOL LEAVING QUALIFICATION IN APPLIED SCIENTIFIC STUDIES – I.S.I.S. PAOLO CARCANO

Address Via Castelnuovo 5, 22100, Como, Italy Field on Study Natural sciences, mathematics and statistics

Website https://www.setificio.edu.it/ Final Grade 84/100

LANGUAGE SKILLS

Mother tongue(s): ITALIAN

Listening Reading Spoken prod	uction Spoken intera	ation
		letion
ENGLISH C1 C1 C1	C1	C1
FRENCH A2 A2 A2	A2	A2

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

DIGITAL SKILLS

- Python (high level)
- R (high level)
- SQL (high level)
- Office 365 MS Word, MS Excel & MS PowerPoint (high level)
- Orange (good knowledge)
- Tableau (good knowledge)
- KNIME (good knowledge)
- SPSS (good knowledge)
- SAS (good knowledge)
- Neo4j (good knowledge)
- RapidMiner (good knowledge)
- C (basic knowledge)
- Julia (basic knowledge)

EXAMPLES OF RECENT PROJECT WORKS

- Cyberbullying Text Classification and Topic Modeling on Social Media Data
 - Text Classification of cyberbullying tweets and comments
 - \circ \quad Clustering comments and posts based on textual content similarity
- Survival prediction on patients with cardiac implant
 - Baseline and augmented Cox models
 - Proportional Hazard assumption tests
 - Performance evaluation (Net Benefit, Calibration Plot)
 - Volume preserving brain lesion segmentation
 - 2D segmentation of RX images
 - o Data Augmentation techniques
- Architectural Heritage Image Classification & Retrieval
 - Transfer Learning models for Image Classification
 - \circ \quad Contextual Image Retrieval with different similarity and distance metrics
- Creation of a database functional to history of researchers affiliation analysis over time
- Scopus and DBLP researcher data merging based on affiliation history
- Analysis of a big company customers behavior

- o Market Basket Analysis
- o Churn Model
- o RFM Model
- Customers clustering based on purchasing behaviour
- Electrical consumptions time series modeling
 - o ARIMA Models
 - $\circ \quad \text{UCM Models} \\$
 - Deep Learning Models
- EmoDB Audio Classification
 - Spectrograms computation
 - Data Augmentation techniques
 - \circ $\;$ Audio Classification of identified emotions on computed spectrograms
- Speaker Diarization on LibriCSS data
 - \circ Speech segments extraction through Voice activity detection task
 - Spectral Clustering on X-vector Embeddings
 - Diarization Error Rate computation on single tracks
 - o Methods of Audio Separation for multi-channel tracks