Federico Milana

PhD candidate in Human-AI Interaction with a background in Computer Science and Human-Computer Interaction and expertise in machine learning, interpretability, and user-centered design. Experienced in developing AI applications to evaluate perception and user experience of AI in user studies.

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EXPERIENCE

PhD Candidate / *University College London Interaction Centre*

September 2020 – November 2024

Research on Human-AI Interaction, implementing gradient boosting, large language models and interpretability techniques in text classification to evaluate non-expert interaction and perception of machine learning.

Research Assistant / *University College London Interaction Centre*

August 2019 - November 2019

Research on the effects of user interface design on user trust and autonomy delegation to chatbots.

AWARDS

UCL Faculty of Brain Sciences

2018/2019 Dean's List

August 2019

Academic performance equivalent to top 5% student achievement.

EDUCATION

Human-Computer Interaction MSc / *University College London*

September 2018 - August 2019

Graduated with Distinction.

Computer Science BSc / *King's College London*

September 2015 - August 2018

Graduated with First-class honors and a specialization in Software Engineering.

VOLUNTEERING

Reviewer for CHI 2024
Honolulu, Hawaii

Reviewer for IMWUT 2024
Melbourne, Australia

Student Volunteer for CHI 2023
Hamburg, Germany

PUBLICATIONS

Understanding Interaction with Machine Learning through a Thematic Analysis Coding Assistant: A User Study / *CSCW '25: Computer Supported Cooperative Work and Social Computing* / *Forthcoming publication*

Exploring how an Interactive ML tool facilitates critical reflection, new insights, and adaptation in analytical processes while uncovering misconceptions about ML in non-expert users.

Chatbots as Advisers: the Effects of Response Variability and Reply Suggestion Buttons / *CUI '23: Proceedings of the 5th International Conference on Conversational User Interfaces* / *https://doi.org/10.1145/3571884.3597132*

19 July 2023

Demonstrating how response variability and reply suggestion buttons significantly increase chatbot advice following.

SKILLS

Machine Learning

User Studies

Experimental Design

Interpretability

LLMs

XGBoost

Python

scikit-learn

numpy

pandas

PROJECTS

Interpretable Text Classification / *https://github.com/fmilana/explanations*

January 2024 – August 2024

Implementing and evaluating LIME, SHAP, and transformers-interpret heatmaps for text classification using XGBoost and BERT in user studies.

Thematic Analysis Coding Assistant / *https://github.com/fmilana/tacodingassistant*

September 2020 – January 2024

A desktop application implementing XGBoost to assist the qualitative coding phase of thematic analysis.

Social Trading Chatbot Advisor / *https://github.com/fmilana/socialtradingchatbot*

April 2019 - November 2019

A simulated social trading environment web application used in online experiments to measure user trust in conversational agents.