Sonia Nicoletti

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EDUCATION

University of Bologna　　　　　　　　　　　　　　　　　　　　　　　Bologna, Italy
Master's Degree in Computer Science　　　　　　　　　　　　　　Sep 2022 – Dec 2023

- **Final Grade:** 110/110 cum laude (First Class Honours)
- **Thesis:** "LLMs and Essence: Developing a Chatbot to Support Software Engineering"

National Taiwan University　　　　　　　　　　　　　　　　　　　　Taipei, Taiwan
Study Abroad Program　　　　　　　　　　　　　　　　　　　　　Aug 2023 – Dec 2023

Drexel University　　　　　　　　　　　　　　　　　　　　　　Philadelphia, USA
Study Abroad Program　　　　　　　　　　　　　　　　　　　　　Sep 2022 – Dec 2022

University of Bologna　　　　　　　　　　　　　　　　　　　　　　　Bologna, Italy
Bachelor's Degree in Computer Science for Management　　　　　　Sep 2019 – Jul 2022

- **Final Grade:** 110/110 cum laude (First Class Honours)
- **Thesis:** "Emerging business models in Web 3.0"

WORKING EXPERIENCE

Cooki srl　　　　　　　　　　　　　　　　　　　　　　　　　　　Bologna, Italy
Full-stack web developer intern　　　　　　　　　　　　　　　　Jan 2022 – Feb 2022

- Improved the database structure (ER model) of the web application resulting in faster queries of user tables.
- Developed a new **JavaScript** front-end feature in the web app (generating food labels based on database entries).
- Conducted analysis of requirements and designed pages of a new mobile app based on existing features of the company's web app using **Figma**.

Agenda Digitale dell'Emilia-Romagna　　　　　　　　　　　　　　　Bologna, Italy
Digital Tutor　　　　　　　　　　　　　　　　　　　　　　　　Dec 2016 – Feb 2017

- Tutored participants of the digitization project "Pane e Internet" which included minorities at risk of being digitally excluded, increasing their digital literacy.
- Encouraged the development of technical skills, assisted and guided participants through the course.

HONORS AND AWARDS

The Cornell, Maryland, Max Planck Pre-doctoral Research School　　　　　　　　2023
Program attendee

- Selected as one of the ~90 students to attend the Cornell, Maryland, Max Planck Pre-doctoral Research Summer School.

UNIBO Study Award for Computer Science　　　　　　　　　　　　　　　　2023
Scholarship recipient

- Awarded as the best student in the Computer Science master's program for 2023, based on grades.

Coop Reno Scholarship　　　　　　　　　　　　　　　　　　　　　　2019-2023
Scholarship recipient

- Selected as a top student among the Coop Reno cooperative.

SELECTED PROJECTS

LLMs and Essence: Chatbot Development for Software Engineering Education　　　　Dec 2024
Master thesis
- Developed an LLM-powered chatbot using a RAG system to provide tailored answers about the Essence standard.
- Performed several tests to evaluate the quality of the responses by adjusting various system components.

Exploring Public Discourse on AI Risks　　　　Jan 2024
Social Media & Social Network Analysis individual project
- Utilized YouTube API to collected comments from AI-related videos published between 2020 and 2023.
- Applied sentiment analysis using BERT, topic modelling, and dictionary-based text analysis to assess public opinions on AI risks.

Customer segmentation analysis for AI-Driven Healthcare Applications　　　　Jul 2024
Business Intelligence group project
- Collected survey responses on the use of a hypothetical medical chatbot designed to offer health advice.
- Utilized PCA and hierarchical clustering techniques to form clusters that reveal varying expectations and needs within the consumer base.

More academic projects can be found on my website: sonianicoletti.github.io

SKILLS

Front-end: HTML/CSS, JavaScript (Vue, Express), Kotlin (Android)

Back-end: Java, C++ (OpenGL), SQL (MySQL, Postgres), Firebase, MongoDB, PHP

Data science and AI/ML: Python (PyTorch), R, WEKA, Gephi

Developer Tools: Git, JUnit, Figma, Balsamiq, Jira, Agile Methodology (Scrum)

Languages: Italian (native), English (C2), French (C1), Chinese (A2)