

Samuele Nicolò Straccialini

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Overview: AI Master's student at Bocconi, passionate about building concrete projects and learning fast through practical experience. I've led teams in applied AI projects, and worked on complete pipelines from data preprocessing and modeling to simple demos, across computer vision, NLP, LLM/RAG systems and time-series forecasting. I also enjoy building on my own time, and have created personal projects such as websites and mobile applications.

Education

Master in Artificial Intelligence

Sep 2025 - Jul 2027 (expected)

Università Commerciale Luigi Bocconi, Milano (MI), Italy

- *Relevant Coursework:* Computer Vision, Language Technology, Software Engineering, Optimization, Linear Algebra.
- GPA:

Bachelor in Mathematical and Computing Sciences for Artificial Intelligence

Sep 2022 - Jul 2025

Università Commerciale Luigi Bocconi, Milano (MI), Italy

- Final Thesis: An exploration of novel heuristics for efficient and accurate k-means clustering – Final grade: 110/110
- *Relevant Coursework:* Analysis, Algorithms and Data Structures, Machine Learning, Deep Learning, Stochastic Processes.

Exchange Program

Sep 2024 - Dec 2024

University of Wisconsin-Madison, Madison (WI), U.S.

- *Relevant Coursework:* Theory of Programming Languages, Cryptography, Dynamical Systems, PDEs, Game Theory, Physics
- GPA: 3.92/4.00

Professional Experiences

Hephaestus Applied Artificial Intelligence Association

Milano (MI), Italy

• President

Sep 2025 - Present

Coordinated divisional activities, events, social media; supervised 80+ members; increased applications by 30%.

• Head of Project – Brain2Img

Feb 2025 - Sep 2025

Reconstructed visual experiences from brain activity using deep learning, Bayesian inference, and diffusion models.

Tech: Python, PyTorch, diffusion models, Bayesian inference, fMRI

• Head of Project – Automatic Quiz Scoring using Machine Learning

Feb 2024 - Sep 2024

Led a team to build an end-to-end pipeline to automatically grade handwritten answer sheets; achieved 80% accuracy.

Tech: Python, scikit-learn, OpenCV, SVM, PCA, AdaBoost, SQL, Git, PyTorch, PHP

• Researcher – "Predicting ECB interest rate using Machine Learning"

Sep 2023 - Jan 2024

Built and compared forecasting models; selected the most accurate one; obtained a test MSE of 0.028.

Tech: Python, pandas, NumPy, statsmodels, scikit-learn, ARIMA/SARIMAX, Git

UW-Madison Association Playing for Real

Madison (WI), U.S.

• Game Developer

Sep 2024 - Jan 2025

Collaborated with a team of twenty in developing a deck-building videogame using Unity and C#.

Tech: Unity, C#, Git, Object-Oriented Programming

Other Activities

• Università Commerciale Luigi Bocconi

Feb 2023 - Present

Student Ambassador: assisted in events and projects; supported and advised thousands of prospective students.

• TOP - Tutoring Online Project

Jan 2025 - Jun 2025

Volunteer math tutor for students with learning difficulties by supporting them for 50+ hours.

Projects

• SuBert | *Tech:* Python, PyTorch, Hugging Face Transformers, BART, GPT-2, YOLO, Faster R-CNN

An end-to-end Computer Vision + Transformer pipeline to translate Sumerian cuneiform; achieved 0.775 mean semantic similarity demonstrating effective cross-lingual understanding despite data scarcity.

• RepoSummarizer | *Tech:* Python, LLMs (llama-cpp-python), Hugging Face, prompt engineering, caching, HTML/CSS/JS

An AI-powered tool that generates documentation, summaries, and visual overviews for any public GitHub repository, combining prompt engineering and efficient caching with local LLMs to ensure controllability and privacy.

• Pydeia | *Tech:* Python, Flask, React, Web Speech API, LLM agents, RAG/embeddings, OpenAI SDK, ElevenLabs SDK

A voice-first conversational AI to helps high-school students with university courses choice, using RAG/embeddings, LLM agents, and a Flask + React prototype, aiming to streamline their decision-making process.

Skills

• **Programming:** Python, JavaScript, C, Flutter (Dart), HTML, CSS, Haskell, C#, R, MATLAB, SQL

• **Other IT Skills:** L^AT_EX, Microsoft Office, Notion, Microsoft Access, Power Query, iMovie, AutoCAD, GarageBand

• **Languages:** Italian (*Native*), English (C1 - Advanced CAE Cambridge, 2021), French (Intermediate B1)

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