FLORIN CUCONASU

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EDUCATION

NATIONAL PHD IN ARTIFICIAL INTELLIGENCE *November 2023 – (November 2026)*
1st year PhD Student at Sapienza University of Rome *Rome, Italy*

MS IN ENGINEERING IN COMPUTER SCIENCE *September 2021 – October 2023*
Sapienza University of Rome *Rome, Italy*
- 110/110 cum laude & Honors Program

BS IN INFORMATION ENGINEERING *September 2018 – October 2021*
Sapienza University of Rome *Rome, Italy*
- 110/110 cum laude & Honor Mention

PUBLICATIONS

The Power of Noise: Redefining Retrieval for RAG Systems [link] *SIGIR, 2024*
RRAML: Reinforced Retrieval Augmented Machine Learning [link] *AIxIA Conference, 2023*

EXPERIENCE

TEACHER ASSISTANT *February 2024 – Present*
Sapienza University of Rome *Rome, Italy*
- Delivered 20% of lectures to 100+ students in a Programming Techniques course, effectively conveying key concepts such as Object-Oriented Programming and Algorithm Complexity.
- Collaborated with the lead professor to design and develop programming exercises and exam materials.

META *December 2023 – December 2023*
Workshop – Personal Aria and Digital Data Timeline *Menlo Park, CA*
- Tested Aria glasses at Meta HQ, actively exploring their integration with personal user data.
- Collaborated in a team of 5 during a hackathon, resulting in a chatbot for personalized food recommendations tailored for Aria wearers.
- Developed a ChatGPT-based chatbot with a Retrieval-Augmented Generation (RAG) system; designed to analyze menus recorded via Aria glasses and users' past preferences to provide custom dining suggestions.

PEER-TO-PEER EDUCATION *High School Program*
- Tutored 5 high school students in Math and Physics, resulting in a 25% increase in their mean test scores.

PROJECTS

E-commerce – Microservices Architecture | *React, HTML5, CSS3, Django, PostgreSQL, Docker, Scrum, Jira*
- Led a team of 5 to build a microservices-based e-commerce application, employing React for frontend and Django for backend. Designed REST APIs in Django for efficient communication between microservices.
- Conducted Scrum meetings and managed user stories and project goals on Jira.

TV Movie Analysis – Interactive Visualization Tool | *D3.js, Pandas, SciPy, Sklearn*
- Led a team of 3 to design and develop an interactive visualization tool for analyzing TV movie scheduling.
- Integrated data from different sources, including web scraping, resulting in a dataset of 100k tuples.
- Designed customized distance functions for Multidimensional Scaling (MDS) to plot data points in 2D.

Coreference Resolution | *PyTorch, Pandas*
- Achieved top class accuracy (88.2%) on Google AI Language's GAP dataset with a BERT-based deep learning model in PyTorch.
- Reduced training time by threefold compared to baseline while maintaining performance.

ABOUT ME

Programming	(***Proficient***) Python • SQL • JavaScript • HTML/CSS **|** (***Familiar***) C++ • Java • PHP • XML PyTorch • Pandas • Weights & Biases • Sklearn • PostgreSQL • React • Django • Docker • Git
Languages	English (*Proficient*) • Italian (*Native*) • Romanian (*Intermediate*)
Interests	Deep Learning • NLP • Generative AI • Information Retrieval • RL • Data Analysis