

Email:

EDUCATION

University of Oslo

Oslo, Norway

MS in Computer Science, Exchange Program (GPA: 4.0)

Fall 2024

• Relevant Courses: Statistical Learning, Natural Language Processing, Applied Machine Learning and Data Analysis, Advanced Topics in Reinforcement Learning

University of Verona

Verona, Italy

MSc in Data Science (Current GPA: 4.00)

Graduation Date: October 2025

• Major Subjects: Deep Learning, Algorithms and Data Structure, Time Series Analysis, Data Management, Statistical Modeling, Cybersecurity for Data Science, Text Mining, data analytics and data interpretation

University of Brescia

Brescia, Italy

BSc in Banking and Finance (GPA: 3.7)

Graduation Date: October 2023

• Major Subjects: Mathematical Analysis, Linear Algebra, Calculus, Probability, Financial Models, Econometrics, R for Database Analysis, Data Visualization

WORK EXPERIENCE

Streparava Holding

Brescia, Italy

Nov 2022 - Jan 2023

Operations/Finance Intern

- Financial Dashboard Development: Designed and implemented interactive dashboards using Python and Microsoft PowerBI, providing real-time insights into financial metrics, improving reporting efficiency by 8%
- o Predictive Modeling: Built and validated predictive financial models, increasing accuracy in forecasting KPIs.
- Process Automation: Automated repetitive data processing tasks, reducing manual workload by and enhancing overall team productivity.

Copan Group

Brescia, Italy

Biomedical Research Intern

Jun 2020 - Aug 2020

- Data Analysis: Applied advanced clustering techniques to classify performance data for 10+ prototypes, improving classification accuracy by 15%.
- Workflow Optimization: Streamlined preprocessing workflows, reducing data handling time by 20% and enhancing overall data efficiency.
- Collaboration & Innovation: Contributed to a cross-functional research team, ensuring timely analysis and providing insights that supported the development of next-generation biomedical devices.

INAIL, Italian National Institute for Work Insurance

Brescia, Italy

Research Intern

Jun 2019 - Jul 2019

- Risk Analysis: Conducted quantitative risk analysis on occupational safety data, identifying 25+ high-risk scenarios, reducing incident risks by an estimated 15%.
- **Protocol Development**: Developed and implemented data-driven models to evaluate and enhance safety protocols, leading to a projected 20% improvement in compliance with national safety standards.
- Collaboration & Impact: Collaborated with multidisciplinary teams to propose actionable recommendations, streamlining safety processes for 30+ workplace environments.

Projects

- Optimizing Feed Forward Neural Networks for Regression and Classification: Conducted an evaluation of FFNN performance on synthetic and real-world datasets, achieving 97% accuracy on the Wisconsin Breast Cancer dataset. Benchmarked against linear models, the study identified key configurations such as Sigmoid activation and the Adam scheduler to enhance generalization and reduce overfitting.
- Shazam-Inspired Audio Fingerprint Algorithm in Python: Developed a prototype of the Shazam fingerprint algorithm in Python based on the original paper, implementing and testing its performance in theoretical and real-world scenarios. Designed robust methods to recognize audio fingerprints, including handling noise, clipping distortion, and pitch shifting. Utilized a dataset of 1,000+ .wav files for algorithm validation under ideal and non-ideal conditions.

• Implementation of Retrieval-Augmented Generation (RAG) System with LLMs: Developed a RAG system to answer factual questions using Wiki pages from an online Star Wars encyclopedia as a document database. Built an initial chatbot leveraging Google's Gemma 1.1 language model (instruction-tuned, available on HuggingFace) to directly respond to user queries without database dependency. The project showcased proficiency in LLM integration, information retrieval, and natural language understanding for building intelligent conversational agents.

SKILLS & INTERESTS

- Programming Languages: Python, R, SQL
- Programming Frameworks: PyTorch, Keras, OpenCV, Huggingface, Pandas, NumPy, Matplotlib, Seaborn
- Technologies: Deep Learning, Transformers, Statistical Learning, Weights and Biases, Docker, Git
- Interests: Strategy and Operations, Analytics, Carrer Consulting, Multi-Agent AI systems, Reinforcement Learning, Cooperative AI, Working Out

Leadership & Volunteering experience

AVIS - Italian Blood Volunteers Association

Brescia, Italy

Board Member

Mar 2021 - Present

- Event Organization: Planned and coordinated blood donation events, ensuring smooth execution and high donor turnout.
- **Promoting Donations**: Designed and implemented campaigns to raise awareness about blood donation, increasing community engagement.
- Handling Finances: Assisted in managing event budgets and resource allocation to support operational efficiency.