Carlo Rosso









Software Skills

Machine Learning:

Torch, Scikit-learn, NLP, AlphaFold, NumPy, HuggingFace, Pandas Polars, Weights & Biases, NLTK

Languages: Python, Rust, Bash, Haskell, C/ C++, Java, TypeScript, JavaScript, Golang, SQL, Lua, Matlab, PHP, HTML, CSS, LaTex, Typst

Programming:

Functional Programming, Algorithms, Git, UV, NeoVim, tmux, DataSpell, undotree, Jupyter, Alacritty, Drizzle, Angular, Docker, Node.js, Nest.js, Django, Tailwind

Spoken Languages

Italian: Native English: IELTS 7.5

Interests Sports: Judo, Sailing, Skiing

Hobbies: Open Source, Reading, 3D Modeling, Journaling, Technology

About me _

Hi! I'm Carlo, a versatile technologist with expertise in AI/ML, full-stack development, and high-performance computing. I deliver robust, effective and efficient solutions across domains—from NLP to structural biology.

Professional Experience ___



Machine Learning Intern link

UNIVERSITY OF PADUA

Padua (PD), Italy 07/2024 - 08/2024

- Performed sentiment analysis to examine whether syntax conveys meaning.
- Achieved **55.2%** accuracy using tree-kernel methods with syntactic data.
- Improved accuracy to 57.3% with LLMs (RoBERTa) w/o syntactic information.

Education __



Master of Science in Computer Science

University of Copenhagen

Copenhagen, Denmark

09/2024 - ongoing

Focusing in Machine Learning, and Integrative Structural Biology



Bachelor of Science in Computer Science

UNIVERSITY OF PADUA

Padua, Italy

09/2021 - 09/2024

- Artificial Intelligence, Software Engineering, Operating Systems.
- Final Grade: 106/110.



Exchange Student

RØDKILDE GYMNASIUM

Vejle, Denmark

08/2019 - 05/2020

Projects __

Weav link

- Social media to discover and advertise events, pubs, and coffees.
- Engineered a scalable python backend with **Django** in **Docker**.

Easy Meal link

- Web application to streamline restaurants' reservations and orders.
- Implemented in Node.js with Nest.js and Drizzle and separately in Angular.
- Full-stack application with >90% coverage of unit test and integration test.
- Processes' documentation: primary, supplementary and organizational.
- Evaluation: 25/30 in Software Engineering.

Music vs Robot link

- Developed tower-defense-style game inspired by *Plants vs Zombies*.
- Implemented in C++14 with Qt framework, automated with Makefile.
- Evaluation: 3/3 with honors in Object-Oriented Programming.

LogBook link

- Parsing Markdown into HTML in Rust and publishing with GitHub Actions.
- Open source project for personal notes, project management, and journaling.
- Keeping a daily LogBook, improves effectiveness and efficiency.