

# Giacomo Guidotto

Software Engineer

## Education

**Ca' Foscari University of Venice**, *BSc in Computer Science*, Venice, Italy Sep 2022 – Jul 2025

- Foundations in algorithms, data structures, software development, and AI. **GPA: 29.0/30**
- Research Thesis in the application of Physics-Informed Neural Networks in epidemiological modeling.
- Acquired knowledge in: Algorithms, Computer Architecture, Operating Systems, Networking, C, OOP, Introduction to AI

**University of Gothenburg**, *Erasmus Exchange Program*, Gothenburg, Sweden Sep 2024 – Jan 2025

- Relevant courses: Introduction to Data Science and AI, Functional Programming

## Achievements

- Selected among top 15% of STEM mentees (2,000+ applicants), LeadTheFuture, 2025
- Selected for a summer school on cutting-edge CS research led by world-class researchers, BOOST '25, 2025
- Acquired a C2 level in English, Cambridge Advanced English, Grade: 203, 2025

## Experience

**Software Developer**, Danfoss, Venice, Italy Sep 2022 – Present

- Designed and developed web applications, microservices, and data pipelines for an IoT platform.
- Promoted from Junior role in 2 years, leading to increased responsibility and impact.
- Technologies used: TypeScript, React, Go, Python, SQL, Git, CI/CD, Kubernetes, GitHub, Azure

**Scientific Researcher**, Ca' Foscari University of Venice, Venice, Italy Oct 2025 – Present

- Leading the creation of a new Python Library capable of building and configuring Physics-Informed Neural Networks.
- Reduced training time by 30% by introducing innovative stopping criteria in the Neural Networks training.
- Technologies used: Python, PyTorch, uv, Git, CI/CD, Docker, GitHub

## Projects

**PINN**: Developing a modular and flexible Python Library for solving mathematical problems using Physics-Informed Neural Networks. The ultimate goal is to provide an exceptional development experience, utilizing automated scripts that streamline the project setup for the user.

**Workspace**: Designed a declarative and robust yet flexible development environment. With configurations ranging from the Operating System to the single applications, following the XDG standard. Using Nix allows for a reproducible and sandboxed development experience.

## Skills

**Programming Languages:** Python, Typescript, Go, Nix, Git, L<sup>A</sup>T<sub>E</sub>X

**Libraries/Platforms:** NumPy, Pandas, Scikit-learn, PyTorch  
PostgreSQL, VictoriaMetrics  
Next.js, React, Tailwind

**Tools:** Azure DevOps, MageAI, Sentry, Grafana, Bytebase, Postman, GitHub, Docker

**Languages:** Italian (Native), English (C2)

**Interests:** Live to 100+ years, jumping from airplanes, producing films