

Francesco Dondi

The guarantee of experience, the enthusiasm for good engineering.

Latest version of this CV at: dondi.fyi/cv_en

Online (React) version of this CV at: <https://fdondi.github.io/cv-react/>

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in francesco-dondi

Fdondi

Born 29/10/1990

Italian citizen, C permit

Married, no children



2023-current: AI startups

In 2023, I realized just programming was no longer enough, and I needed to get out of my comfort zone. I decided to explore the opportunities offered by AI.

As **Backend Engineer** for **Hoshii**, I contributed to a LangChain AI pipeline for advanced OCR. In non-AI tasks, I delivered a React webshop, integrating with MongoDB and Go backend, expanding the API as needed.

As **Senior Machine Learning Engineer** for **Giotto AI**, contributed to cutting-edge research tackling the ARC challenge. Especially focused on data augmentation. Extensively used BART for classification, and Pytorch/Lightning for efficient multi-GPU training.

As **Senior Software Engineer** for **Deep Impact**, had the opportunity to have direct experience of Computer Vision, both on cloud and edge embedded devices (Nvidia Jetson platform). Contributed by overhauling Docker setup and solving bugs.

2021-2023: Cloud Data Warehousing

Cloud SQL providers seemed a promising field to apply C++ to a problem with high performance requirements, analyzing and executing query plans. Unfortunately, the success of Snowflake couldn't be recreated, and interest rates falciated the sector.

As **Senior Software Engineer** for **DoubleCloud**, developed infrastructure around ClickHouse SQL, deploying with SaltStack, Helm and Terraform. Go for Telegraf plugins.

As **Senior Software Engineer** for **Firebolt**, developed the SQL optimization engine and testing infrastructure: expanded supported SQL syntax and optimizations, reworked the test framework to support new test suite, and contributed to rewriting to higher standards the optimization engine.

2020 - 2021: finance market-making

Fresh out of Google, I found an unique and exciting opportunity in the financial sector.

As **Software Developer and Quantitative Analyst** at **F-Trust**, maintained and developed a Trading Engine (C++); redesigned, implemented and migrated storage (PostgreSQL); extracted and integrated data from multiple log streams; analyzed data to highlight opportunities for improvement (Julia).

2017-2020: Google

As **Senior Software Developer** at **Google**: within Search, productionized an initially experimental tool (C++): improved runtime from days to hours, added support for new kinds of data, made the results easily visualizable and monitorable, and made onboarding orders of magnitude faster for most cases.

2015 - 2017: Initial experiences

At **Ascent Software**, I helped maintain and develop a driver (C++) for automotive communications, running both on regular computers and embedded (QNX real-time OS).

At **Rulex Inc**, I explored options for speeding up C algorithms with CPU (OpenMP) and GPU (Nvidia CUDA) parallelization. At **CNR**, I ported MATLAB algorithms to Python.

Skills

Languages

C++
Python
Nvidia CUDA
BASH
Go
Java
Julia
C#



Data Science/ML

SQL
- Clickhouse SQL
- PostgreSQL
MongoDB
Pytorch
TensorFlow
Pandas
Numpy



Development

Git
Cursor
Jenkins CI
Gitlab CI



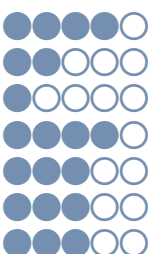
Web

React
REST API
Gin
gRPC



Cloud

Docker
Terraform
Helm
Linux
AWS
GCloud
Windows



Languages

English
Italiano
Deutsch
Français



Formal education

02/24–11/24	CAS ETH in Machine Learning in Finance and Insurance , <i>ETH Zürich</i>
2009–2015	Galileian School of Higher Education , <i>University of Padua</i> , Enriching program, 98/100
2012–2014	Master Degree in Mathematics , <i>University of Padua</i> , 108/110
2009–2012	Bachelor Degree in Mathematics , <i>University of Padua</i> , 110/110 <i>cum Laude</i>
2004–2009	High School - Science Track , added IT, French, <i>Liceo Fermi</i> , Bologna, 100/100 <i>cum Laude</i>

Continuous Learning

Programming languages

Aug 2024	<i>GitHub</i>	J.P. Morgan Python training	React	<div><div></div><div></div><div></div><div></div><div></div></div>
Aug 2024	<i>Linkedin</i>	React.js Essential training	Rust	<div><div></div><div></div><div></div><div></div><div></div></div>
May 2024	<i>Linkedin</i>	gRPC in Python	C#	<div><div></div><div></div><div></div><div></div><div></div></div>
May 2024	<i>Linkedin</i>	Design Patterns for Rust	Financial Python	<div><div></div><div></div><div></div><div></div><div></div></div>
Mar 2024	<i>Linkedin</i>	C# and .NET Essential Training	Java	<div><div></div><div></div><div></div><div></div><div></div></div>
Jan 2024	<i>Linkedin</i>	Designing RESTful APIs	MATLAB	<div><div></div><div></div><div></div><div></div><div></div></div>
Nov 2023	<i>Linkedin</i>	C# Essential Training 1: Types and Control Flow	C Embedded	<div><div></div><div></div><div></div><div></div><div></div></div>
Nov 2023	<i>Linkedin</i>	C Programming for Embedded Applications	gRPC	<div><div></div><div></div><div></div><div></div><div></div></div>
Oct 2023	<i>Linkedin</i>	Learning MATLAB	REST	<div><div></div><div></div><div></div><div></div><div></div></div>
Jan 2023	<i>Linkedin</i>	Rust Essential Training		
Jan 2023	<i>Linkedin</i>	Level Up: Java		
Dec 2022	<i>Linkedin</i>	First Look: Rust		

Design, documentation and communication

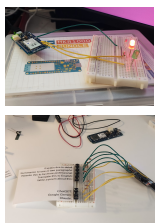
Aug 2024	<i>Linkedin</i>	Communicating Time Boundaries	UML	<div><div></div><div></div><div></div><div></div><div></div></div>
Jun 2024	<i>Linkedin</i>	Software Design: Modeling with UML	Business planning	<div><div></div><div></div><div></div><div></div><div></div></div>
Feb 2023	<i>Linkedin</i>	Software Architecture: From Developer to Architect	Software Arch.	<div><div></div><div></div><div></div><div></div><div></div></div>

Cloud and DevOps

Feb 2023	<i>Linkedin</i>	AWS Certified Solutions Architect - Associate (SAA-C02)	AWS Cloud	<div><div></div><div></div><div></div><div></div><div></div></div>
Jan 2023	<i>Linkedin</i>	DevOps Foundations: Going Cloud Native	DevOps	<div><div></div><div></div><div></div><div></div><div></div></div>
May 2020	<i>Linkedin</i>	Cloud Architecture: Advanced Concepts (2019)		

Projects

Embedded



Nov 2023	BTC Arduino monitor github.com/Fdondi/arduino-btc Board blinking green for increased bitcoin price, red for decrease. Blinks faster for fast price change.	C++ Embedded	<div><div></div><div></div><div></div><div></div><div></div></div>
Aug 2024	AI Keyboard github.com/Fdondi/ai_keyboard A keyboard to perform various operations with LLMs with one click. Working on Bluetooth connection.	Arduino Embedded Development Electronics Embedded connectivity (USB, WiFi/SSH, Bluetooth LE)	<div><div></div><div></div><div></div><div></div><div></div></div>

Competitions

ongoing	Leetcode , https://leetcode.com/u/Fdondi/
ongoing	Kaggle , https://www.kaggle.com/litecoin
2024	Codility Pi Challenge , <i>Silver Award</i>
19-20/Mar/2016	H-Farm , <i>H-Ack Food</i> , Reinventing the 'Bio food' experience.
12-13/Dec/2015	H-Farm , <i>H-Ack Luxottica</i> , Ideas for the future of glasses.

Personal

Hobbies:
Read, hike, bike, swim.

2009 **Italian Olympics of Mathematics**, *Gold* 🏆

2008 **Italian Olympics of Information Technology**, *Bronze* 🏆