



# Francesco Penasa

SOLUTION ARCHITECT · SERVICE AND SOFTWARE ARCHITECTURES - CYBERSECURITY - BIOINFORMATICS

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“Enjoy the little detours to the fullest.”

## Education

### UNITN (The University of Trento, DISI)

Trento, Italy

MASTER IN COMPUTER SCIENCE - SERVICE AND SOFTWARE ARCHITECTURES / BIOINFORMATICS: 104/110

Sep. 2019 - Dec. 2021

- Master's thesis: **Sedute Online** (Flutter and PHP)  
*Revision of a Voting System Application through Cross-platform mobile framework with a focus on Security and Performance.*
- Area Software and Service Architectures: Formal methods, Security Testing, Autonomous software agents and Multimedia data security
- Area Data Science: Machine learning and Deep learning
- Area Bioinformatics: Laboratory of Biological Data Mining, Algorithms for Bioinformatics and Bioinformatics Resources

### UNITN (The University of Trento, DISI)

Trento, Italy

B.S. IN COMPUTER SCIENCE: 99/110

Sep. 2016 - Sep. 2019

- Bachelor's thesis: **BPMN redesign through planning** (Java)  
*Dynamic failure recovery, optimization and alternate path creation through a BPMN and PDDL integration.*

### ITCG Pilati (ITET C.A. Pilati Cles)

Cles, Italy

SECONDARY EDUCATION - SURVEYOR

2011 - 2014

- CAD 2D certificate. 90/100

## Skills

|                    |  |
|--------------------|--|
| <b>DevOps</b>      | AWS, Azure, Docker, Travis, Heroku, Swagger, Mobile App Deployment           |
| <b>Back-end</b>    | ExpressJS, Django, Flask, LAMP Stack, Java Spring, MySQL, PostgreSQL         |
| <b>Front-end</b>   | Flutter, React, HTMX, HTML, JQuery, Tailwind CSS, Bootstrap CSS, JavaFX      |
| <b>Programming</b> | Python, Node.js, Dart, PHP, Java, NuXMV, C, SML, R, MATLAB                   |
| <b>Misc.</b>       | Optical Fiber join, Raspberry Pi, Arduino, LaTeX, Git, AutoCAD, Telegram Bot |
| <b>Languages</b>   | Italian, English C1, German B1   |

## Experience

### Reply, Cluster Clash IT

Milan, MI 20152, Italy

CONSULTANT

May 2023 - PRESENT

- Generative AI: Prompt Engineering and development of Generative AI Solutions with Azure OpenAI API and SDK, Flask and React
- Microsoft Power Platform Solutions: Development and Deployment of Dataverse, Power Apps, Power Automate and Power BI solutions
- Backend: Python (Flask) and .NET (EF Core, Dapperer, ASP.NET) with SQL db interaction
- Frontend: React and Redux
- DevOps: Azure DevOps, Docker, Kubernetes, Azure Functions, Azure Logic Apps
- Scrum and Agile methodologies

### Alpinformatica

Malè, TN 38020, Italy

SOFTWARE ENGINEER

Jan. 2022 - May. 2023

- Main Mobile Developer: build, management and deployment (Windows, iOS, Android and Huawei) of Flutter applications
- ERP and REST API development: PHP in LAMP environment on AWS resources
- AWS Serverless development: telegram bot, GPS analysis and computation, authentication services in Python and NodeJS
- Research and optimization of company DevOps Pipeline
- Internal utility tool development and research: personalized db migration tool, pdf modifier and various utility tools in Python
- SPID and CIE integration to mobile applications; SPID and CIE company accreditation
- Soft Skill developed: Functional communication

### Alpinformatica

Malè, TN 38020, Italy

INTERNSHIP IN SOFTWARE DEVELOPMENT DEPARTMENT

Aug. 2021 - Dec. 2021

- Development of the thesis project, the voting system: Sedute Online
- SPID integration to mobile applications and SPID company accreditation

### Funivie Madonna di Campiglio

Madonna di Campiglio, TN 38086, Italy

INTERNSHIP IN IT DEPARTMENT

Jun. 2019 - Aug. 2019

- Web-app development for ticketing system, web-app testing, code refactoring, integration of BancaIntesa's API
- Optical fiber management, tech assistance, mobile Operative Systems compilation

## University of Trento

PART-TIME STUDENT WORK IN IT DEPARTMENT

Trento, Italy

2018

Internal tool development

### MMape

TECH SUPPORT

Croviana, TN 38027, Italy

Sep. 2016 - PRESENT

Paypal API, Tech Support, Networking, Wordpress development and assistance

### MMape

MUSEUM GUIDE

Croviana, TN 38027, Italy

Apr. 2016 - Sep. 2016

Soft Skill developed: public speaking, team-working and time-management

### Studio Tecnico Fantelli

SURVEYOR

Dimaro, TN 38025, Italy

Apr. 2016 - Sep. 2016

CAD 2D, CAD 3D and Google Sketchup for blueprints developments.

### Progetto Giovani - APPM

CIVIL SERVICE - EDUCATOR AND EVENTS ORGANIZER

Dimaro, TN 38025, Italy

Jun. 2015 - Jun. 2016

• **Soft Skill developed:** problem-solving, communication and team-working.

## Extracurricular Activity

### DailyQuest.it (Gaming - News and Insights)

EDITOR

Italy

Nov. 2018 - PRESENT

Editor for Insight articles and step-by-step guides

### Battlecraft.it (Gaming - News and Insights)

EDITOR

Italy

June 2015 - Nov 2018

Editor for Insight articles and step-by-step guides

### CoderDojo Trento (community-based computer programming clubs for young people)

VOLUNTEER

Trento, Italy

Oct. 2017 - PRESENT

Computer Science Education for children

### Progetto Giovani - APPM (Music and boardgames laboratories)

VOLUNTEER

Dimaro, Italy

Dec. 2013 - 2015

• Education and Social cohesion for teenagers

## Certifications and Challenges

Sep. 2023 **Develop Generative AI Solutions with Azure OpenAI Service MOC AI-050**, Pipeline

Aug. 2023 **Azure AI-050T00**, Workshop at Microsoft Italia

Jul. 2023 **Azure PL-900: Microsoft Power Platform Fundamentals**,

Milan, Italy

Online

2022 **AWS Certificate**, Certified Cloud Practitioner

2022 **AWS Certificate**, Solution Architect

2021 **Google Hashcode 2021**, 2933rd

## Referenze

### Maurizio Varese

BUSINESS UNIT MANAGER

Reply Srl

2023 - Present

• m.varese@reply.it

### Giovanni Sonna

Alpinformatica di Giovanni Sonna -

Malè

CEO

2021-2023

• g.sonna@alpinformatica.com

### Michele Bezzi

COORDINATOR

APPM

2015

ing. Nicola Mosca

SYSTEM ADMINISTRATOR

Funivie Madonna di Campiglio

2019

• nicola.mosca@funiviecampiglio.it

**Anna Benedetti**

GENERAL MANAGER

*MMape*  
2016 - Present

- [annabenedetti88@gmail.com](mailto:annabenedetti88@gmail.com)