

# Filippo Brugnolaro

COMPUTER SCIENCE STUDENT · UNIVERSITY OF PADOVA

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## Education

### University of Padova

Padova, Italy

MSC IN COMPUTER SCIENCE - INTERNET, MOBILE AND SECURITY

Oct. 2022 - Exp. Sept. 2024

- **Relevant coursework:** Advanced Algorithms, Computability, Mobile Programming, Web Information Management, Startup in ICT, Functional Languages, Data Mining, Programming Languages, Methods & Models for Combinatorial Optimization, Computer & Network Security
- **Focus:** Internet, Mobile and Security and briefly on theory of programming languages

### University of Padova

Padova, Italy

B.S. IN COMPUTER SCIENCE - GRADE 107/110

Oct. 2019 - Sep. 2022

- **Relevant coursework:** Algorithms & Data Structures, Object Oriented Programming, Software Engineering, Databases, Web Technologies, Open-source Technologies, Automata and Formal Languages, Operations Research, Operating Systems, Computer Networks
- **Thesis:** Development of a software module for purchasing order management using heuristic optimisation methods (Italian only)

## Experience

### Math, Physics and Computer Science Tutoring

Cittadella, Padova, Italy

FREELANCE

Jul. 2017 - Present

Engaged in a learning experience with personal tutoring experience in Mathematics, Physics, and Computer Science

- Offering in-depth knowledge and guidance on **polynomials, limits, derivatives** and **integral calculus**
- Guiding students through dynamic forces, thermodynamics and electromagnetism
- Providing expertise in **C++**, **object-oriented programming** and well-versed in **algorithms & data structures**

Preparing extra simulations before class test and boasting students results with **90% success rate**

### Ergon Informatica

Castelfranco Veneto, Treviso, Italy

SOFTWARE DEVELOPER - INTERNSHIP

Jul. 2022 - Sept. 2022

- Contributed to the development of an **ERP** optimization module enhancing purchasing order management
- Spearheaded the implementation of a **Tabu search** heuristic method
- Produced comprehensive **Requirements Analysis** and **Software Architecture** documentation
- Conducted simulations revealing potential savings ranging **from 3% to 7%** annually for client companies

**Leveraged knowledge:** Algorithms and Data Structures, C# and Design Patterns

## Projects

### Edukid

Padova, Italy

TEAMWORK - [GITHUB.COM/FILIPPOBRUGNOLARO/EDUKID\\_MPM](https://github.com/filippobrugnolaro/edukid_mpm)

September, 2023

- Collaborated on a **multi-platform trivia** application aimed at enhancing children's learning across various subjects
- Led the design and implementation of the **API, architecture** and **User Interface**
- Presented the application at the Science4All event in Padova being **1<sup>st</sup> most used** application

**Technologies used:** Flutter, Firebase

### TinyML Interpreter

Padova, Italy

INDIVIDUAL - [GITHUB.COM/FILIPPOBRUGNOLARO/TINYML](https://github.com/filippobrugnolaro/tinyml)

February, 2023

- Crafted a subset ML programming language interpreter, showcasing deep understanding of programming language
- Included key contributions on the implementation of **type inference** algorithm and evaluation of application expressions
- Passed evaluation of correctness with **100%** test cases success rate

**Technologies used:** F#

### Artworks Tracker

Padova, Italy

TEAMWORK - [GITHUB.COM/FILIPPOBRUGNOLARO/ARTWORKS-TRACKER-APP](https://github.com/filippobrugnolaro/artworks-tracker-app)

January, 2023

- Cooperated on an **Android** application designed to enhance museum visits through **Bluetooth beacons**
- Led the building through the development of the **API** and **User Interface**
- Improved from an **accessibility** standpoint, incorporating audio features and creating an accessible path for users
- Tested the application thanks to usage of 8 disabled people achieving **100%** of positive feedback

**Technologies used:** Kotlin, Jetpack Compose

### Distilleria Veneta

Padova, Italy

TEAMWORK - [GITHUB.COM/FILIPPOBRUGNOLARO/DISTILLERIAVENETA](https://github.com/filippobrugnolaro/distilleriaveneta)

September, 2021

- Participated on the design and development of a cash desk **Desktop application** efficiently managing and storing all bills
- Led the design and implementation of the application's **architecture**, establishing a clear hierarchy
- Improved a small company efficiency during selling phase increasing it by **5%**

**Technologies used:** C++, Qt Framework

MORE PROJECTS CAN BE FOUND ON MY GITHUB PROFILE ([GITHUB.COM/FILIPPOBRUGNOLARO](https://github.com/filippobrugnolaro))

## Skills

**Languages** Italian (C2 level), English (B2 level), Spanish (A2 level)  
**Technologies** React, HTML5, CSS, PHP, C++, Qt, C#, JAVA, Kotlin, Jetpack Compose, Dart, Python, Javascript, F#, SQL, OPL, R, Docker, Git