



# Marcello Goccia

Computer Science Teacher

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## PROFILE

Dedicated and qualified IGCSE Computer Science teacher with extensive software development experience. Passionate in fostering computational thinking and practical application of theoretical concepts. Actively collaborating with other departments to create multidisciplinary learning experiences to enrich student understanding and engagement in technology.

## EDUCATION

- PGCE awarded by the University of the West of England Bristol, UK, 2024.
- Ph.D. in Electrical and Computer Science Engineering, Università degli Studi di Genova, Italy, 2006.
- Degree in Telecommunication Engineering, Università degli Studi di Genova, Italy, 2002

## KEY SKILLS

- Technology Integration
- Classroom Management
- Lesson Planning
- Effective Communication
- Extensive Computer Skills
- Programming: Python and C++
- Expert in Artificial Intelligence and Robotics

## WORK EXPERIENCE

### **IGCSE Computer science Teacher**

**Tsinglan School, Dongguan, China. August 2023 until now**

- Deep knowledge of the IGCSE curriculum and assessment criteria.
- Successfully integrated real-world projects into teaching, allowing students to apply theoretical concepts to practical challenges.
- Students consistently demonstrated a deep understanding of programming and computational thinking, with many of them excelling in national and international competitions.
- Collaborated with Arts department to create interdisciplinary projects, enhancing students' creativity and understanding of both subjects.
- I lead after-school AI and robotics clubs, mentoring students to conduct research and aim for publication in conferences and journals.
- In addition to teaching, I have developed applications that enhance the operational efficiency of our school, including a course selection system that has significantly reduced administrative burdens and improved the student experience.

### **Middle School Computer science Teacher**

**Tsinglan School. Dongguan, China. December 2022 – July 2023**

- Mentored students with ad-hoc courses learning basics of Artificial Intelligence and robotics.
- Contributed to organize "Tech Fair" and hackathons to increase students' engagement in the school's STEM program.
- Created a welcoming and inclusive classroom environment, resulting in increased student engagement and participation during classroom activities.

### **Senior Software Developer, 2014 – August 2022**

**Istituto Italiano di Tecnologia (iit) – Genoa, Italy**

- Designed software for a rehabilitation robot, from firmware to GUI, leading to the launch of a start-up after extensive testing.
- Developed software for remote monitoring of visually-impaired patients, significantly improving previous versions.
- Taught Python and programming courses to PhD students in collaboration with the University of Genoa.

### **Principal Engineer, 2006 - 2013**

**Thales Research and Technology UK – Reading, United Kingdom**

- Developed efficient computer vision algorithm for video surveillance at Thales UK VISION Lab, significantly improving speed and performance.
- Designed algorithm to optimize information collection during UAV reconnaissance missions, resulting in invention disclosure.
- Implemented innovative traffic-light optimization algorithm using Particle Swarm Optimisation for the "Interactive Collaborative Information Systems" project.