Marco Maida

Computer scientist

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About me

I was born in Turin, Italy, and have been tinkering with computers for as long as I can remember.

I started working professionally as a developer in 2013. After three years, I started working as game developer while studying part-time as a bachelor's student.

Once I graduated, I moved to Germany and started a joint master's and Ph.D. program. In 2022 I completed my Master's program and first-authored a research paper.

I am currently in New York, interning at Bloomberg LP.

Languages

L'**italiano** è la mia lingua madre,

I am fluent in **English**,

und ich spreche etwas **Deutsch**.

Trivia

I love camping and traveling with my bike: I often do the two together • I usually risk it, if I believe I am right • I love simplicity • I am striving not to be the smartest person in the room • I often relax by walking on a tensioned rope • I play guitar and — less successfully — sing.

Skills

I have more than **nine years of professional experience**. I extensively worked with **Python**, **C#**, **C++**, **C**, **Java**, **Rust** and **Coq** code. I have a mixed background of **industry** and **academia**.

I am comfortable working on **complex code bases** in large and small teams, and I quickly get used to new technologies. I can **analyze problems** and then design, implement, evaluate, document, and present my solutions.

I am **outgoing** and I **love working in teams**. Due to my game development background, I am used to collaborating with different professional figures (e.g., artists, designers, musicians) and I have an eye for **user experience**.

Experience

2022 **R&D Intern.** Bloomberg LP
I worked on accelerating SAT solving using GPUs (C++, CUDA).

2019-2022 **PhD Student.** Max Planck Institute
I studied timeliness certifications with formal verification (COQ) and on trace-based schedulability analysis on Linux (C, Rust). I mentored three interns and published three papers.

2016-2019 **Game developer.** 34BigThings
I worked with Unity3D (C#) and Unreal Engine (C++) on single player and online multiplayer games shipped on Steam, PS4, XboxOne, Switch, and mobiles. I developed gameplays, AIs, dev tools and UIs.

2015-2016 **Freelance Software Engineer.** Teoresi, Choralia, Maserati
I built an interactive visualization software and a learning game using Unity3D (C#). I shipped on mobile devices and browsers (JS). I managed one artist I hired and collaborated with another engineer.

2013-2016 **Software engineer.** R.O. srl
I developed software solutions for glass processing factories. I started as a developer (C, C++, C#, SQL) and later transitioned to planning new features and managing a small team ($\leq$ 5 people).

Education

2019-2022 **Master in Computer Science.** Technische Universität Kaiserslautern

2016-2019 **Bachelor in Computer Science.** Università degli studi di Torino

2015-2016 **Game dev: Software Development** Event Horizon School.

Projects and Publications

2022 **Treecode.** Personal
I created an alternative to QR Codes. Messages are encoded as unique trees. (`www.maida.me/treecode`)

2021 **Poet - Automatic Proof Generation.** Max Planck institute
I developed a tool that yields a formally verified worst-case-scenario software timing analysis. I first-authored a publication at ECRTS2022, winning its *outstanding paper award*.
(`https://drops.dagstuhl.de/opus/volltexte/2022/16336/pdf/LIPIcs-ECRTS-2022-19.pdf`)

2018 **Fast Mobile Cycle (FMC) Framework and Toolkit.** 34BigThings
I developed a Unity3D framework that accelerates the creation of production-ready casual games, paired by a Python toolkit to execute bulk operations on the games. (`www.github.com/34OpenThings`)

2017 **Razer Chroma in Unreal Engine 4.** 34BigThings
I developed a framework that control LEDs on Razer's Chroma hardware. This system is used in every Chroma-compatible 34BigThings game. (`www.youtube.com/watch?v=AihLBrJBufk&ab_channel=34BigThings`)