



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

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|-----------|---|-----------------------------|
| 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 (≤ 5 people). | |

Education

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| 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

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| 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 <i>outstanding paper award</i> . (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/340penThings) | |
| 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) | |