Luca Di Bartolomeo

Personal Data

Place and Date of Birth:	Rome, Italy | 23 September 1996
Address:	Gladbachstrasse 10, Zurich, Switzerland
Mobile:	0039 339 3440236
email:	lucadb96@gmail.com

Education

2018 - now	Master Degree in Computer Science at **ETH** Zurich. Expected graduation date: January 2021.
2015 - 2018	Bachelor's Degree in Computer Science at **La Sapienza** university of Rome. Final Grade: 110/110, with honours.
2010 - 2015	High school diploma at **Liceo Scientifico "Augusto Righi"**, in Rome

Skills

Programming Languages:	Java, C/C++, Python, GLSL
Tools/Technologies:	Vim, Git, Arduino, Android, openGL, Bash, Docker
Operating Systems:	Linux (Ubuntu, Arch Linux), Windows
Spoken Languages:	Italian (Native), English (Fluent), Spanish (Basic)

Project / Competition Experience (Solo)

2019	**ETH Cybersecurity Codecon:** First place winner of an internal ETH Zurich competition about cybersecurity. Won a trip with five other people to New York, where we visited various companies involved in security and spent a week working together with Bloomberg's security team. Here is an article on ETH's blog describiing the experience.
2019	**Tor exit node admin:** In September 2019 I setup a Tor exit node to help increase the bandwidth of the Tor network. It is currently sustaining 0.1% of the Tor network outbound connections! Here you can find some statistics about it.
2018	**Cyberchallenge.it:** An italian security competition for college and high-school students. I placed third on the national scoreboard and first on my college's scoreboard.
2018	**Raymarching distance fields:** rendered a procedurally generated volcanic archipelagus entirely made in the fragment shader in GLSL for the final project of the Computer Graphics course. Short pdf description.
2016	**Voronoi stippling**: I wrote a program in Python to emulate the stippling painting technique using weighted voronois. I was supervised by my Programming Fundamentals professor, but it was an extracurricular activity.
2015	**Italian Olympiads in Mathematics**: I got the bronze medal in the national finals. It was an high school individual competition, which revolved around solving both numerical and demonstration problems.
2014	**Musical Floppies**: developed for my high school thesis, I connected 8 old floppy drives with an Arduino, and by moving their stepper motors at precise frequences I was able to play simple tunes with the noise they produced.
2014	**Italian Olympiads in Informatics**: I got the 12th place in the national finals and got a silver medal. It was an high school competition that revolved around the solution and C++ implementation of algorithmical problems. I was also selected for the IOI training camps.

Work Experience

Sep 2019 - now	Teaching Assistant for the "Algorithms Lab" course at ETH. Link to the course webpage
Jun - Sep 2018	Google Summer of Code student, worked for the radare2 reverse-engineering framework. Here there's a short recap of my contributions.
Feb - Jun 2018	Teaching assistant for the Competitive programming course, aimed at preparing highschool students for the regional contest of the Italian Olympiads in Informatics.
Jun - Sep 2017	Intern at Spiketrap, focused on sentiment analysis of short internet comments in Python using a variety of machine learning algorithms (Naive Bayes, Logistic regression, Neural nets)
2016	Speaker at Codemotion Rome 2016, talk: "You Turing Complete me – turing completeness in videogames"

Project / Competition Experience (Team)

2019	**CTF competitions:** Since 2018 I've been an active player in the ETH Capture The Flag team, catching many flags and helping them get some important victories such as the first place in the latest Swamp CTF and first academic place (9th overall) in the latest Insomnihack CTF. Link to our team on CTFTime.
2018	**Google Hashcode:** partecipated in the Google Hashcode (March 2018) in a team of 4, an international programming competition revolving around optimisation problems. We got the first place in Italy (out of 300 Italian teams), 85th place in the world (out of 5000 teams).
2017	**SWERC 2017**: I partecipated as a member of the "Sapienza Red" team, held in Paris in November 2017.
2016	**SWERC 2016**: I partecipated as a member of the "Sapienza" team, held in Porto in November 2016.
2015	**Exhibitor at Codemotion Rome**: I was the main coder of "Pico", a Google Cardboard flight simulator for Android in which the player controlled the wings of the plane by holding two Wii controllers (connected via bluetooth to the Android phone) in his hands and tilting them accordignly. The game got featured and exhibited at Codemotion Rome 2015.
2015	**Global Game Jam Rome**: I won first prize in the "Graphics" category and second prize for "Gameplay" category. Partecipated together with my sister. Our game, "Poopfest", featured handmade watercoulour drawings.
2013-2015	**Italian Olympiads in Mathematics**: I partecipated three times in the national finals of the team competition of the Italian Olympiads. We got two medals: a bronze medal in 2013 (for the 3rd place), and a silver medal in 2015 (for the 2nd place). In 2013 and 2014, I was only a member of the team, while in 2015 I was the captain.
2013-2015	**Ludum Dare Game Jam**: I partecipated five times in this team competition in which you have to code a game in 72 hours. In all of those five times I partecipated with my sister; I was the main coder, while she was both the artist and the secondary coder. We got occasional help from friends for the music. All of our games where made in Java, using the Processing library. One of our games got the first place in the "Most Funny" category, and 6th place in the "Overall" category (the number of games sent every competition floats around a thousand).
2013	**Cleanweb Hackaton**: I won the first prize by developing a prototype of an application to help people visualize if they reduced their electricity consumption in their houses.

Hobbies and Interests

During my spare time I enjoy playing chess, listening to music (in particular when programming), and going out, but if I stumble upon a book I like, I can't go to sleep unless I've finished it.