Luca Di Bartolomeo

Zurich, Switzerland
lucadb96@gmail.com
+39 339 344 0236

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. Awarded scolarship for the "Excellence path".

Work Experience

2019 **ETH - Teaching Assistant** for the "Algorithms Lab" course, revolving around teaching master students competitive programming techniques and the basics of computational geometry. Course webpage

2018 **Radareorg - Google Summer of Code scholar**, worked for the radare2 reverse-engineering framework. I worked on the terminal user interface, improving the graph drawing algorithm and command syntax, added UTF-8 compatibility and improving the autocompletion engine. Short recap of my contributions.

2018 **La Sapienza - Teaching assistant** for the Competitive programming course, aimed at preparing highschool students for the regional contest of the Italian Olympiads in Informatics.

2017 **Spiketrap - Research intern**, focused on sentiment analysis of short internet comments in Python using a variety of machine learning frameworks (sklearn, keras)

2015 **Codemotion Kids - Coding teacher** I worked with middle school students to teach them the basics of Java and with primary school children introducing them to programming with Scratch.

Awards

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 overall place in the latest Swamp CTF and first academic place (9th overall) in the latest Insomnihack CTF. Link to our team on CTFtime.

2019 **ETH Cybersecurity Codecon:** First place winner of an internal ETH Zurich competition about cybersecurity. Won a trip to New York, where I spent a week working together with Bloomberg's security team. Here is an article on ETH's blog describiing the experience.

2018 **Google Hashcode:** We got the first place in Italy (out of 300 Italian teams), 85th place in the world (out of 5000 teams) in the Hashcode 2018 competition.

2018 **Cyberchallenge.it:** An italian CTF competition for college and high-school students. I placed third on the national scoreboard and first on my college's scoreboard.

2017 **ACM-ICPC SWERC**: Honorable mention as a member of the "Sapienza" team, both in 2016 in Porto and in 2017 in Paris.

2016 **Excellence path**: As one of the top 5 ranking students during my bachelor at "La Sapienza", I was awarded the excellence path scholarship. It covered the reimbursement of the tuition fee and the chance to work with professors to do an additional research project.

2015 **Italian Olympiads in Mathematics**: I got the bronze medal in the national finals individually, and a silver medal in the national finals competing with a team for which I was the captain.

2014 **Italian Olympiads in Informatics**: Awarded the silver medal for obtaining the 12th place nationwide. Thanks to my results, I was admitted to the IOI training camps.

Projects / Community involvement

2019 **Tor exit node admin:** In September 2019 I setup a powerful Tor exit node to help increase the bandwidth of the Tor network. It is currently sustaining 0.1% of all the Tor network outbound connections! Here you can find some statistics about it.

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. Link to short pdf description. Link to live demo on shadertoy.

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 **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). The game got featured at Codemotion Rome 2015.

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 tunes with the noise they produced.