

LUCA DI BARTOLOMEO

PERSONAL DATA

PLACE AND DATE OF BIRTH: Rome, Italy | 23 September 1996
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EDUCATION

2018 - NOW Master Degree in COMPUTER SCIENCE at **ETH** Zurich.
Expected graduation date: January 2020.
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, JavaScript, Processing
Tools/Technologies: Vim, Git, Arduino, Android, Google Cardboard, OpenGL, Raspberry Pi
Operating Systems: Linux (Ubuntu, Arch Linux), Windows
Spoken Languages: Italian (Native), English (Fluent), Spanish (Basic)

WORK EXPERIENCE

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 [Spiketrapp](#), 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 (SOLO)

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.
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 frequencies 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.

PROJECT / COMPETITION EXPERIENCE (TEAM)

- 2018 **Google Hashcode:** participated 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 participated as a member of the "Sapienza Red" team, held in Paris in November 2017.
- 2016 **SWERC 2016:** I participated 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 accordingly. 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. Participated together with my sister. Our game, "Poopfest", featured handmade watercolour drawings.
- 2013-2015 **Italian Olympiads in Mathematics:** I participated 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 participated five times in this team competition in which you have to code a game in 72 hours. In all of those five times I participated 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 were 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.

EXAMS TAKEN

EXAM	GRADE	CREDIT HRS
Calcolo differenziale (Differential Calculus):	30 / 30, with honors	6
Calcolo integrale (Integral Calculus):	30 / 30	6
Progettazione di sistemi digitali (Design of digital systems):	30 / 30, with honors	6
Architettura degli elaboratori (Architecture of digital systems):	30 / 30	6
Introduzione agli algoritmi (Introduction to algorithms):	30 / 30, with honors	6
Metodi mat. per l'informatica (Math. methods for informatics):	30 / 30, with honors	6
Fondamenti di programmazione (Programming fundamentals):	30 / 30, with honors	9
Metodologia di programmazione (Programming methodologies):	30 / 30, with honors	9
Calcolo delle probabilità (Probability I)	30 / 30, with honors	9
Algebra (Geometry I)	30 / 30	9
Progettazione di algoritmi (Algorithm design)	30 / 30, with honors	9
Reti di elaboratori (Computer networking)	30 / 30, with honors	9
Basi di dati (Database)	27 / 30	12
Sistemi operativi (Operative systems)	30 / 30, with honors	12
Automati, calcolabilità e complessità (Automatas, calculability and complexity)	29 / 30	6
Computer Graphics	30 / 30, with honors	6
Analisi Vettoriale (Vectorial Calculus)	28 / 30	9
Sistemi di basi di dati (Database systems)	30 / 30	6

I was selected to take part in the "Excellence Path", a special set of courses aimed at the best students of the faculty, which started in February 2017. I completed it in February 2018.

HOBBIES AND INTERESTS

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