

# DAVIDE ANTONINO GIORGIO

giorgiodavide.it

davide@giorgiodavide.it · +393890309866

Ever passionate in computer science, I have decided to study Computer Engineering at “Politecnico di Torino”. Over the years I gained experience in the field of computer and network engineering, thanks also to collaborations towards the open source world where I developed network sniffers and packet filters using the latest technologies in the Linux kernel like eBPF/XDP.

## PROJECTS

SEP 2019 – DEC 2020

**DEVELOPER**, POLYCUBE NETWORK

Developed a network sniffer working with eBPF/XDP technology that injects the service code into the linux kernel to improve the performance. The *packetcapture service* can dump the capture in *pcap* format or send it to a remote client that will use REST api.

**Technologies:** eBPF/XDP – C – C++ – REST API – Python – Linux – requests

DEC 2019 – DEC 2020

**DEVELOPER**, SNIFFER

Developed a libpcap-based network sniffer capable of capturing packets through a netdev. Sniffer observes the headers of packets in transit and is able to parse HTTP header by extracting the contained host URL.

**Technologies:** C++ – Libpcap

NOV 2019 – ACTUAL

**SYSTEMS ENGINEER**, BUILDING A CLOUD AND DNS LOCAL SERVER

Built a personal cloud server using *nextcloud* in raspberry pi environment.

This system also implements a DNS server with blacklisting policies based on *Pi-hole* and a web server that allows my personal website to be reachable on the internet.

**Technologies:** Linux – SoC – Raspberry Pi – DNS blacklisting – Web server – OS

SEP 2019 – DEC 2020

**DEVELOPER**, POLIDOX

*System and device programming course project.*

Developed a desktop application that implement a real time cooperative text editor.

Thanks to a conflict-free replicated data type (CRDT) algorithm the application can ensure the consistency of the document for every user editing it.

**Technologies:** C++ – Qt – UI Design

MAR 2019 – JUN 2019

**DEVELOPER**, FILE TRANSFER

Developed a competing system with client-server architecture that allows the transfer of files using sockets. The TCP file transfer server can accept multiple connections to take advantage of multi-threaded architectures.

**Technologies:** C – Sockets – Linux – Concurrent

## EDUCATION

### CURRENT

#### **MASTER'S DEGREE IN COMPUTER ENGINEERING**, POLITECNICO DI TORINO

Full-time student in computer engineering at the polytechnic of Turin.

Earned credits: 66

Weighted average: 29.15

### 2018

#### **BACHELOR'S DEGREE IN COMPUTER ENGINEERING**, POLITECNICO DI TORINO

I obtained my Bachelor's degree at the Polytechnic University of Turin, combining my studies with work in the family business.

### 2013

#### **HIGH SCHOOL DIPLOMA**, LICEO SCIENTIFICO R.POLITI AGRIGENTO

### 2017

#### **IELTS BRITISH COUNCIL**, ENGLISH TEST

Final grade: B2

## SKILLS

- C / C++
- eBPF / XDP
- Networking / Cloud
- Qt
- Linux
- Java
- Systems engineer
- Concurrent programming
- Libpcap / Packet filter

## WORK ACTIVITIES

### MAR 2019 – SEP 2019

#### **LAB ASSISTANT AT LABINF**, DAUIN

I worked as a laboratory assistant at the LABINF (Laboratory of Advanced Computer Science). During this period, I was involved in the configuration and fine-tuning of the devices used during the university semester.

### ACTUAL

#### **TEACHING ASSISTANT AT A.I.F.**, TORGNON

Every year, associazione per l'insegnamento della fisica (A.I.F.) and the department of Physics of Università studi di Torino allow excellent students of the last year of high school to take part of physics stage in Torgnon.

Starting from 2020 my laboratory activities will focus on development with Arduino board.