Francesco Bianchi

WORK EXPERIENCE

10/2023 – CURRENT Rome, Italy
TEACHER AT CYBERCHALLENGE.IT

-Responsible of teaching at CyberChallenge.IT, 2024 Edition
-Responsible of teaching at the newborn CyberChallenge Bootcamp, Practical Cybersecurity Course

07/2023 – 09/2023 Munich, Germany
SOFTWARE ENGINEER INTERN FINCCAM

- Restructured logging system to permit a clear understanding of the flow of the code to portfolio-manager and non technical expert
- Improved memory usage of the R application by over 500 times, passing from couple GB to few MB.
- Optimized testing speed by 35%, using a cloud storage to automatically save and preload data, instead of recalculating it everytime.
- Held an educational talk on cybersecurity to Finccam executives and employees

09/2022 – 12/2023 Rome, Italy
JUNIOR SOFTWARE ENGINEER CNIT – NETWORK ASSURANCE AND MONITORING LAB

- Statistical Analysis of 3GPP standardization evolution via:
-- Information extraction from 3GPP portal (Data mining and Data cleaning)
- Development of a web app to display data interactively, allowing the user to conduct deep analysis on the data recovered as easily as possible.
- Structured API to ensure the communication between the React frontend and the Flask (python) and SQLite backend

05/2020 – 07/2020 Rome, Italy
SOFTWARE ENGINEER INTERN CNIT - TECHVISORY

- HTTP/DASH trafic analysis of video streaming cache datasets of DAZN (python Pandas)
- Mapped over 1Million distinct IP-addresses to get Coordinates and ISP. Used free services limited to 60 request/min and parallelized the script to run on over 100 diferent free proxies simultaneously.

EDUCATION AND TRAINING

10/2023 – CURRENT
MASTER'S DEGREE IN ENGINEERING IN COMPUTER SCIENCE Sapienza University of Rome

Attending courses on Cryptography, Algorithms for distributed systems, Algorithm design, Cybersecurity and more

Field of study Engineering in Computer Science

10/2020 – 10/2023
BACHELOR'S DEGREE IN COMPUTER SCIENCE AND ENGINEERING Sapienza University of Rome

PROJECTS

School fraud analysis

Conducted an analysis using python to detect anomaly in the school expenses:
• Extracted information from Antitrust Opendata with a python. Saved them in a PostgreSQL database..
• Categorized expenses based on the similarity of their descriptions from the CPV vocabulary using Natural Language Processing.
• Extended opendata information using external site, to get school name and ID, by matching the geographic coordinates (python scraper).
• Conducted analysis and managed to get the first place in our local Data Analysis project competition

Parking-Booking Automation

Developed a bot to ensure the client parking priority at Politecnico di Milano and Humanitas University.
• Network Snifing using Burp to understand the client-server communication and python requests to re-implement them.
• Cookies and CSRF tokens management to deal with the login page
• Bypassed google reCAPTCHA service, as afer the bot was running they tried to stop it by placing a CAPTCHA.
• Parallel execution to secure the parking lot to different clients simultaneously

HONOURS AND AWARDS

02/2024
SWERC

ICPC SouthWestern Europe Regional Contest, competitor with SapienzaBlack team.

07/2023
CyberChallenge.IT 1st place

1st place in the Attack/Defense-Style National Competition at Turin

02/2023
SWERC

ICPC SouthWestern Europe Regional Contest, competitor with SapienzaWhite team.