Federico Zappone

Software Engineer

Skill

Linux	5 yrs
Bash	5 yrs
Python	4 yrs
Typescript	5 yrs
Java	2 yrs

Information

- Molise - Italy
- Federico Zappone
- zappaboy.github.io
- federico-zappone@hotmail.it

Bio

Software Engineer with a Master's Degree in Software Systems Security and DevOps/sysadmin skills.
Co-founder of Just Another S.R.L and BB-SMILE S.R.L.
Particular interest in Blockchain and Distributed Ledger Technologies, automated trading and cryptocurrencies.
Creator of JATB, a framework to automate trading strategies.

Work Experience

Co-founder
Just Another S.R.L.
10/2022 - NOW

Just Another S.R.L. is an Italian IT company focused on finding and developing high-quality software solutions. Just Another makes its expertise available for the design and development of solutions involving innovative technologies including the use of Artificial Intelligence, Machine Learning, Blockchain and DevOps pipelines.

Co-founder and Chief Technology Officer
BB-SMILE S.R.L.
04/2022 - NOW

BB-SMILE is a university startup from the University of Sapienza and the University of Molise that operates as a center of expertise on Blockchain and AI technologies by integrating the operational skills of technology partners with the research and development knowledge of academic partners.

Blockchain Developer/Data Engineer
University of Molise - UNIMOL
10/2021 - 10/2022

Winner of the research grant with the aim of designing and implementing a blockchain for food traceability.

- Development of permissioned Distributed Ledger using Hyperledger Fabric;

- Stress tests assessment on the developed platform using Hyperledger Caliper;

- Designing and generation of a dataset built for Machine Learning Classification tasks about mediterranean plants;

Education

2020 - 2022
Software Systems Security
University of Molise - UNIMOL
Thesis: Neuroevolutionary trading: general methodology and its application to the cryptocurrency market.
Final grade: 110/110 cum laude with distinction.

2017 - 2020
Computer Science and Technology
University of Molise - UNIMOL
Thesis: A blockchain-based ecosystem for biomedical data management.
Final grade: 107/110.

Certifications

2024
Generative AI Certified Professional
Oracle Corporation

2022
Information Engineer
University of Molise - UNIMOL
Licensed non-registered

2022
24-CFU Teaching qualification
University of Molise - UNIMOL

Achievements

2022
CyberChallenge CTF
CyberChallenge
3rd place at University of Molise

2022
GlobalGameJam
GlobalGameJam
2nd place at University of Molise

Blockchain/Sysadmin/Full-stack Developer   09/2019 - 09/2022
Avanguard

- Full-stack developer using MEAN stack (MongoDB, Express.js, Angular and Node.js);

- Multiple Linux servers administrator (RedHat RHEL 7/8, CentOS, Ubuntu);

- Development of permissioned and permissionless Blockchains using Hyperledger frameworks;

- Development of bash scripts for custom blockchain deployment;

- Smart contract (chaincode) development;

- REST API development to interact with the Blockchains (Node.js with Typescript).

Site for Public Administration   03/2019 - 03/2020
University of Molise - UNIMOL

Being part of the group occupied with:

- Designing the structure of the site;

- WordPress environment configuration;

- Development of the site components;

- Plugins management and security checks;

- WordPress environment performance optimization;

- New custom PHP plugin development using Machine Learning techniques.

Publications

2024
Fixing Dockerfile smells: an empirical study
Empirical Software Engineering

2022
DELTA-Distributed Elastic Log Text Analyser
4th Distributed Ledger Technology Workshop (DLT 2022) at ITASEC 2022

2022
Listening to what the system tells us: innovative auditing for distributed systems
Frontiers in Computer Science

2022
Integrating Heuristics and Learning in a Computational Architecture for Cognitive Trading
Elgar - AI and Behavioral Finance

2021
What is your Distributed (Hyper)Ledger?
Emerging Trends in Software Engineering for Blockchain WETSEB 2021 - ICSE 2021

2020
The Genesy Model for a Blockchain-Based Fair Ecosystem of Genomic Data
Frontiers Blockchain

Professional Skills

Skills

- AI and Machine learning techniques for big data analysis (Python, Tensorflow, Keras, LLMs).
- Mastery of various GNU/Linux distributions (Arch Linux, Ubuntu, Ubuntu Server, RedHat, CentOS, etc…).
- BASH language, server machine management and scripting.
- Software Systems Security general knowledge about methodologies (Analysis, Assessment, Threat Models etc…) and practical tools used in Bug Bounty, Penetration testing, Red teaming etc…
- Relational and non-relational databases (MySQL, PostgreSQL, MongoDB, CouchDB, SQLite, etc…).
- Distributed Ledger Technologies and Blockchain.
- Blockchain development frameworks such as Hyperledger Fabric, Hyperledger Composer and IBM Blockchain Platform.
- Versioning tools (Git, GitHub, GitLab).
- CI/CD pipelines using GitHub Actions and GitLab with Kubernetes integration.
- Kubernetes cluster management (k3s, Rancher, Traefik, Cloudflare Origin CA, Ansible).
- Financial markets general knowledge particularly in the cryptocurrency market.
- Technical and fundamental analysis tools in the context of trading.
- Mining of cryptocurrencies and related tools (ASIC, RIG).
- Scripting languages (Python, Javascript, Ruby, R and Bash POSIX).
- Web application development (NodeJs, Javascript, Typescript, HTML, CSS, SCSS, PHP, etc…).
- Web development frameworks (Angular, React, Vue, Ionic, etc…).
- RESTful APIs.
- Event-driven programming (Socket.io).
- Web application development via CMS (WordPress, Ghosts and creation/management of related plugins).
- Mobile application development (Hybrid and native - Ionic, Android).

Personal Projects

Crawly

Crawly is a customizable web crawler service to get information and monitor the changes on the pages using APIs.

Worky
Click for more info

Worky is a CLI tool that helps to define and load project workspaces. It can be used to load a project workspace with a single command and quickly start your work. Worky saves you from wasting time doing repetitive tasks before actually starting to work. This project can be used for every type of project or workspace, the only limitation is due to the functionality of the programs that you can run from CLI.

Pyvttt
Click for more info

The name speaks for itself: PYthon Video-to-Text Transcriber. Pyvttt is a simple CLI tool that supports the download of audio tracks from YouTube and it is able to perform the transcription and both translation and summarization using AI models.

Roundtable
Click for more info

Roundtable is a tool that simulates a roundtable discussion using AI agents. It uses different Ollama LLM models for text and code to simulate the discussion between models using AutoGen.

Crawlall
Click for more info

Crawlall is a simple crawler tool that uses Google search engine-supported features to find and collect required patterns (email, URL, phone, dates, IP address, hashtag, etc…) related to a search query.

Hopper-bacco
Click for more info

Hopper-Bacco (Oh perbacco) is a simple utility service that accepts and forwards API requests rotating both IP and User Agent to avoid bans.

Fabric Starter

Fabric Starter is an automation tool to deploy a blockchain for testing purposes using Hyperledger Fabric in minutes with a single command.

Hi-jacket
Click for more info

Hi-jacket is an automated cryptojacker that allows you to find simple XSS vulnerabilities and exploit them by loading a cryptojacking script with GPU support. This project was developed in order to find a defense against this type of attack.

Domo
Click for more info

Domo is a very simple all-in-one tool to manage IoT devices from the CLI. Domo can be very useful to create other scripts to automate the routines in the house.

Copycat
Click for more info

Copycat is a Python tool that record and replay mouse and keyboard macro using through a GUI interface.

August 18, 2024