# Sangiorgi Alessandro

https://linkedin.com/in/alessandro-sangiorgi-9321a7108 mail@alessandrosangiorgi.net

# LINKS

https://github.com/fulvius31 https://www.linkedin.com/in/alessandrosangiorgi-9321a7108

# LANGUAGES

Italian – Native Language English – Fluent Spanish – Basic

#### **PROGRAMMING SKILLS**

Very Proficient:

- Java
- Android SDK
- Android NDK
- Proficient:
- C
- Shell (Bash, Sh, Zsh)
- GNU/Linux
- HTML
- CSS
- MySQL
- Docker
- Python
- Familiar:
- OKD/OpenShift
- Kubernetes
- C#
- ETEX
- YAML
- PHP
- XML
- C++
- JavaScript

# EXPERIENCE

#### RED HAT | SOFTWARE ENGINEER

- Jan 2025 – Present | Remote, USA

Developing and optimizing machine learning solutions by contributing to open-source projects, including Triton (an OpenAl project) and PyTorch (a Meta framework).Enhancing performance, functionality, and community collaboration with Red Hat. Developed Triton Cache Manager, a tool that index, prune and warm the Triton Cache.

#### **RED HAT** | SOFTWARE ENGINEER INTERN

May 2024 – Nov 2024 | Remote, USA

- Worked with the Emerging Technology organization in the computational infrastructure team;
- Optimized the Red Hat certification process using RH tools like bootable container;

**SANGIORGI SRL** | CEO, FOUNDER & FULL STACK DEVELOPER Sep 2017 – Present | Militello in Val di Catania, CT - Italy

- Led the company to become the second Italian company by number of downloads on Google PlayStore (over 120MLN downloads). See 42matters;
- Tech Lead on Android development and IT consultancy;
- Designed and administered IT infrastructures and CI/CD flows;
- Developed software in C, Android NDK/SDK, Java, and Bash;
- Acted as the reference person for customer troubleshooting;
- Developed globally recognized products such as WIFI WPS WPA TESTER, WeeNet, and Wpa Calculator;
- Managed app monetization using Admob, Facebook Audience Network, and other ad networks.

# **SAINT LOUIS UNIVERSITY** | GRADUATE RESEARCH ASSISTANT IN COMPUTER SCIENCE DEPARTMENT

Jan 2023 – Aug 2024 | Saint Louis, MO - USA

- Working on eBPF/XDP and the Linux Kernel;
- Contributed to research and software development efforts for network management and cybersecurity projects;
- Worked on cybersecurity and network solutions.

# **SAINT LOUIS UNIVERSITY** | RESEARCH ASSISTANT IN COMPUTER SCIENCE DEPARTMENT

Jul 2018 – Mar 2019 | Saint Louis, MO - USA

- Contributed to research and software development for cloud computing and network management projects;
- Investigated and developed technical solutions to meet research objectives;
- Monitored and reviewed component-level feature development and integration tasks;
- Assisted in technical report writing.

#### FRATELLI VALENZIANI | IT CONSULTANT

Mar 2021 – Sep 2021 | Carlentini, SR - Italy

• Provided network design and security consulting;

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- JavaScript

#### MADFARM | WEB DEVELOPER

May 2016 – Jun 2016 | Scordia, CT - Italy

- Engaged in software engineering and team collaboration;
- Front-end development: HTML5, CSS, AngularJS;
- Back-end development: PHP, Ruby on Rails.

### MAIN PERSONAL PROJECTS

#### [OPEN SOURCE] IP NEIGH FOR ANDROID | OWNER & FULL STACK DEVELOPER

This application uses both Android SDK and NDK to provide an alternative solution to a known issue on Android SDK 30 (restricting iproute2's netlink bind functionality for ARP table retrieval). Its source code is available on GitHub.Link: Github link

#### WIFI WPS WPA TESTER | OWNER & FULL STACK DEVELOPER

App developed with Android SDK/NDK with more than **160MLN downloads worldwide**. It tests security flaws in user APs and calculates WPS PINs (using AP MAC and/or serial number).Link: Google Play Store Lalso developed a C# version using DotNet for Windows OS.Link: Microsoft Store

#### [OPEN SOURCE] ONESHOT | DEVELOPER CONTRIBUTOR

OneShot is a Python program that performs the Pixie Dust attack without needing to switch to monitor mode. Its source code is available on GitHub.Link: Github link

#### WEENET - NETWORK UTILITY SUITE | OWNER & FULL STACK Developer

App developed with Android SDK/NDK with over 5MLN downloads worldwide. It is a network analyzer enabling features such as intrusion detection, speed test, ping, traceroute, port scan, and security analysis. Used by notable tech influencers in Italy.Link: Google Play Store

#### WPA CALCULATOR | OWNER & FULL STACK DEVELOPER

App developed with Android SDK/NDK with over 5MLN downloads worldwide. It helps users assess the strength of their WPA passwords.Link: Google Play Store

# EDUCATION

#### SAINT LOUIS UNIVERSITY

MASTER'S DEGREE IN COMPUTER SCIENCE Jan 2023 - Dec 2024 | Saint Louis, USA, MO (GPA 3.93/4.00)

#### UNIVERSITY OF CATANIA AND ECAMPUS

BACHELOR'S & MASTER'S DEGREES IN COMPUTER ENGINEERING Mar 2021 | Catania, Italy, Sicily, CT (100/110)

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- C#
- ATFX
- YAML
- PHP
- XML
- C++
- JavaScript

## PUBLICATIONS

MITIGATING DE-AUTHENTICATION DOS ATTACKS IN 802.11 VIA EBPF AND XDP A. SANGIORGI, F. ESPOSITO, A. PINTO, R. TOURANI NetSoft 2025, Budapest, Hungary I am the first author of this paper. I edited the mac80211 module in order to use eBPF and XDP on the 802.11 protocolMore info: NetSoft 2025 website

#### DEMO: PROPELLING HAPTIC DEVICES INTO THE MOBILE WORLD TO ADVANCE K-12 STEM LEARNING A. SANGIORGI, F.

ESPOSITO, G. SCHEMBRA, J. GORLEWICZ MobiHoc 2019, Catania I am the first author of this demo. I developed the Android app and the SDN network.More info: ACM DL

# CERTIFICATIONS

2016 Angular. JS Certificate | Student at DIEEI (University of Catania)