

# Salvatore Tomaselli

# Curriculum Vitae

### Education

2011–2013 **Msc Computer Systems and Networks**, *Chalmers tekniska högskola*, Göteborg, Sweden, *GPA 4.2/5*.

2007–2011 **B.S. Computer science**, *Università degli studi di Catania*, Catania, Italy, *GPA* 110/110 with honors.

# **Publications**

Title Towards Lightweight Logging and Replay of Embedded, Distributed Systems

Authors Salvatore Tomaselli, Olaf Landsiedel

Description In this paper we introduce MILD; providing Minimal Intrusive Logging and Deter-

ministic replay.

In ASCoMS 2013

proceedings

Title LibReplay: Deterministic Replay for Bug Hunting in Sensor Networks

Authors Olaf Landsiedel, Salvatore Tomaselli, Elad Schiller

In EWSN'15

proceedings

### Masters Thesis

Title Debugging Wireless Sensor Networks with Incremental Snapshots

Supervisor Professor Olaf Landsiedel

Description This thesis intoduced a tool to capture event from a wireless sensor network, where nodes use TinyOS, and allow deterministic replay of the network inside a simulator.

#### Bachelor Thesis

Title Sviluppo di server web e sistema di caching per contenuti dinamici

Supervisor Professor Giuseppe Pappalardo

Mejerigatan 2 B lgh 1707 – 412 76 Göteborg  $\implies +39\ 3299588380$   $\implies +46\ (0)738710132$   $\implies$  tiposchi@tiscali.it  $\implies$  http://ltworf.github.io/ltworf/  $\implies$  https://github.com/ltworf/

Description This thesis was focused on the implementation of an HTTP/DAV server that can cache and invalidate server-generated responses, leading to greatly reduced IO and CPU loads.

## Skills

Languages In order of experience: Python, C, C++, nesC, Java, JavaScript, Haskell, PHP

Databases PostgreSQL, MySQL, MongoDB, Redis, Elasticsearch

Frameworks Django, Qt5, Flask

Software Debian, GNU Autotools, Git, SaltStack, Jenkins, unittest

Technical Experience in making C code work on various POSIX platforms; using pthreads, atomic operations, networking.

Programming on embedded systems, asynchronous or event-based.

# Notable projects

Relational Relational, a relational algebra parser/compiler/optimizer, used in academia and as educational tool. Implemented in Python

Can compile relational algebra to Python, and perform some optimizations on the parse tree.

It provides a GUI for ease of use.

http://ltworf.github.io/relational/

lapdog C++ daemon that uses ICMP+ARP to generate events upon appearing/disappearing of network devices.

https://github.com/ltworf/lapdog

weborf A HTTP/DAV server, implemented in C.

http://ltworf.github.io/weborf/

Canary Dynamic library to monitor for heap overflows, implemented in C.

https://github.com/ltworf/canary

# Experience

2016- **Software developer**, *Cryptzone*, Göteborg, Sweden.

Improve Linux support for Appgate XDP.

2014-2015 **C++ Software Engineer**, *Minerva Networks*, S. G. La Punta, Italy.

The company, US based, sells software and hardware solutions to content providers, to provide live programs or download on demand.

The C++ team provides a scalable and geolocated version of the backend API.

My role included the integration of Elasticsearch within the API, to provide the devices with full text search and filtering. I also contributed to solutions to deploy and manage clusters.

2013-2014 Backend Python Developer, Duego, Göteborg, Sweden.

The position involved writing and maintaining a REST API in Python for the clients to use, and managing the servers (production and staging).

The API code was based upon different technologies: Flask, Redis, Elasticsearch, Mongodb. For the staging and production environment I had to work with AWS, autoscaling, Jenkins, Saltstack, graphite, New Relic and several tools that were developed in house.

I changed position because the company was a startup and was shut down by the board.

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2007-2012 **Student's server system administrator**, *Università degli studi di Catania*, Catania, Italy.

Maintain the Student server, install/configure services and implement web interfaces in PHP to use them.

Manage PostgreSQL database, mail service (Postfix+Dovecot) and webserver (Apache 2). Implement a web interface to provide the users means to register projects, with git/svn access and a wiki.

## Contributed to

Subsurface The only divelog available on Linux systems.

I wrote a functionality to export the logs on a website I made and some other contributions and translations to Italian.

Debian At the present time I am a Debian Maintainer (DM).

I maintain mostly packages in C and Python; the most used of them is xinetd.

# Languages

Italian Mothertongue

English Fluent

French Basic

#### Interests

- Bass guitar
- SCUBA diving

Board gamesLiterature

• Electric guitar

### Other

I am physically disabled, and I am mentioning it because some countries have specific legislation.