



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 Deterministic 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 introduced 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

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📄 <http://ltworf.github.io/>

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**, *Cyxtera/Cryptzone*, Göteborg, Sweden.
The product I work on, is a vpn solution that comes with advanced permissions. The solution includes clients, and an appliance.
My role was mostly back-end development for the appliance, and some work on the Linux version of the client.

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, Mongoddb.
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.

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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
- Electric guitar
- Board games
- Literature

Other

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

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