



# 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

*Via Martiri d'Ungheria, 60 – Nicolosi, Italy 95030*

☎ +39 3299588380 • ✉ [tiposchi@tiscali.it](mailto:tiposchi@tiscali.it)

📄 <http://ltworf.github.io/ltworf/> • <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, PHP, Javascript  
Databases PostgreSQL, administration experience as well  
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.  
Familiar with the concepts of functional programming  
Programming on embedded systems, asynchronous or event-based.

## Notable projects

Relational Relational, a relational algebra parser/compiler/optimizer, used as educational tool in a few universities. Implemented in Python  
Internally can parse and compile queries to Python, and perform some optimizations on the parse tree.  
It provides a GUI for ease of use.  
<https://github.com/ltworf/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.  
<https://github.com/ltworf/weborf>  
Canary Dynamic library to monitor for heap overflows, implemented in C.  
<https://github.com/ltworf/canary>

## Experience

2014- **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 version of the backend API.  
My role includes the integration of Elasticsearch within the API, to provide the devices with full text search and filtering.  
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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2007-2012 **Student's server system administrator**, *Università degli studi di Catania*, Catania, Italy.

Maintain the Student server, install/configure services and develop 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.

2006 **Developer**, *Tau Marmi S.r.l.*, Catania, Italy.

Develop a tool to connect with industrial machines and periodically store the log. Implement a client to connect and reproduce the GUI of the machine, showing the last known status.

## Social skills

I am an easy going person, passionate about software and about making things right.

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 regarding it.

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