

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

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

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, Qt, 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

 ${\sf lapdog} \quad {\sf C} + + \ {\sf daemon} \ \ {\sf that} \ \ {\sf uses} \ \ {\sf ICMP} + {\sf ARP} \ \ {\sf to} \ \ {\sf generate} \ \ {\sf events} \ \ {\sf upon} \ \ {\sf appearing} / \ {\sf disappearing}$

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 sells integrated devices to watch 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, 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.

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 wartiri d'Ungheria, 60-Nicolosi, Italy 95030

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. Develop a tool to count worked hours of the employees, and print monthly reports in PDF.

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

Music

Board games

SCUBA diving

Literature

Other

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