Giuseppe Di Natale

Senior Software Engineer & Tech Lead Google

Education

- 2015 M.S., Computer Science, *University of North Carolina at Chapel Hill.*Network Analysis of TCP, Mobile Traffic, and Cloud Infrastructure
- 2010 B.S., Computer Science, University of South Florida, Summa Cum Laude.
- 2010 B.S., Computer Engineering, University of South Florida, Summa Cum Laude.

Skills

- General C, Go, git, bash, C++, C#, Latex, SQL, Continuous Integration, Linux Kernel Development, Python, svn, autotools.
- HPC Parallel & Distributed File Systems, Cluster Configuration Management, Distributed Systems.
- Security Symbolic Execution, Basic Reverse Engineering.
- Digital Arts 3D Level Design (Quake 3 & Valve's Source Engine), Autodesk Maya.

Professional Experience

- 2018-Present Google Cloud, Senior Software Engineer & Tech Lead, Sunnyvale, CA. Kernel Release Management & Automation, Kernel Development Workflow
 - 2015 0010 1
 - 2015-2018 Lawrence Livermore National Labratory, Computer Scientist, Livermore, CA.
 - Develop and maintain LC's Parallel & Distributed File System capabilities.
 - o Maintainer: OpenSFS Lustre Buildbot, ZFS on Linux Buildbot.
 - o Contributor: ZFS on Linux, Lustre, mpiFileUtils, Maestro Workflow, others.
 - Fall 2013 University of North Carolina at Chapel Hill, Graduate Teaching Assistant, Chapel Hill, NC. COMP116 Introduction to Scientific Computing
 - 2010-2013 **Nextech Systems, Inc.**, *Senior Software Developer and Team Lead*, Tampa, FL. Led 6 developers; Developed features and bug fixes; Performed database conversion and management.

Research Experience

- 2014-2015 **Networks Lab, UNC Chapel Hill**, Research Assistant.
 - Researched network traffic collection and analysis at the TCP level.
- Summer 2014 Cyber Security (Division 5), MIT Lincoln Laboratory, Research Intern.
 - Researched use of symbolic execution to find vulnerabilities in Windows drivers.
 - Spring 2014 Networks Lab, UNC Chapel Hill, Research Assistant.

 Researched use of Network Simulator 2 to simulate RAPID TCP.
- Summer 2009 Hardware Verification, USF, Undergraduate Research Assistant.
 - Researched development of algorithms for the logical verification of circuits.
- Summer 2009 **Sprayable Solar Panels, USF**, *Undergraduate Research Assistant*. Researched development of methods to produce sprayable solar panels.

Specialized Courses

- Graduate Wireless Networks, Big Data, Distributed Systems, Compilers, Operating System Implementations, Computer Graphics, Physically Based Models & Simulation
- Undergraduate Networks, CMOS/VLSI Design, Software Engineering, Simulation, Software System Development, Design Automation, Web Applications, Computer Animation, AI Robotics

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ZFS Buildbot Maintainer of the continuous integration platform for ZFS on Linux.

Lustre Buildbot Maintainer of the OpenSFS countinuous integration platform for Lustre.

ZFS on Linux Contributor and Reviewer to the OpenZFS port to Linux.

Lustre Contributor to the Lustre File System.

mpiFileUtils Contributor to mpiFileUtils tool set.

Maestro WF Contributor to Maestro Workflow tool.

LMT Contributor to Lustre Monitoring Tools.

Awards & Honors

- 2017 LLNL award for organizing & leading a Super Computing Reddit AMA on r/science
- 2016 LLNL award for STEM outreach and participation in Expanding Your Horizons
- 2010 University of South Florida College of Engineering Most Outstanding Graduate Award
- 2008 Mozelle Beverly Scholarship
- 2006 Florida Academic Scholar's Award Award for 100% tuition
- 2006 University of South Florida Scholastic Achievement Award
- 2006 University of South Florida Director's Award
- 2006 International Baccalaureate Diploma
- 2006 Derby Lane Scholarship
- 2006 Walmart Foundation Scholarship
- 2004 Outstanding Volunteer Award Awarded by Pinellas County School Board
- 1997 Doorways Scholarship Award for 100% tuition

Memberships

Honor Societies Tau Beta Pi - Florida Gamma

University Activities

- Spring 2010 Vice President, USF ACM
 - 2009-2010 Web Master, Tau Beta Pi Florida Gamma Chapter
 - 2008-2009 Record Keeper, Tau Beta Pi Florida Gamma Chapter

Volunteer Experience

- 2016-Present **Expanding Your Horizons**, *Tri-Valley*,
 - Organized and hosted a workshop on how to build an MP3 player in C#.
- 2016-Present **Expanding Your Horizons**, San Joaquin,

Organized and hosted a workshop on how to build an MP3 player in C#.

Provided assistance to other workshops.

2004-2006 Sutherland Elementary, Palm Harbor, FL,

Volunteer Tutor.

2002-2004 Sutherland Elementary, Palm Harbor, FL,

Technology Lab Assistant.