Giuseppe Di Natale

Software Engineer
Google

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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**, *Software Engineer*, Sunnyvale, CA.
Kernel Release Management & Automation, Kernel Development Workflow

2015-2018 **Lawrence Livermore National Labratory**, *Computer Scientist*, Livermore, CA.
○ Develop and maintain LC's Parallel & Distributed File System capabilities.
○ Maintainer: OpenSFS Lustre Buildbot, ZFS on Linux Buildbot.
○ 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

Open Source Software Contributions

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.