# George Papadimitriou

# Personal Data

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### Research Interests

My interests lie within the intersection of Distributed Computing and Data Intensive Applications. This includes concepts manifesting in High Performance Computing, Cloud Computing and Big Data systems.

# **EDUCATION**

Aug. 2017 | University of Southern California (USC), USA

. Viterbi School of Engineering

Degree Pursued: PhD in Computer Science

Now Advisor: Ewa Deelman
Current GPA: 3.9/4.00

SEP. 2010 | NATIONAL TECHNICAL UNIVERSITY OF ATHENS (NTUA), Greece

. Electrical and Computer Engineering (ECE)

Degree: Diploma in Electrical and Computer Engineering

FEB. 2018 | GPA: 8.06/10.0

# Work Experience

June 2018 | Oak Ridge National Laboratory – ASTRO Internship

I was part of the Future Tehcnologies Group, collaborating with Spallation Neutron Source scientists

and building new workflows.

SEPT. 2018 Tools: Pegasus WMS, Python, Shell Scripting, Git

Aug. 2017 | Information Sciences Institute – Graduate Research Assistant

. I'm part of the Scitech group, working on Panorama360.

: I'm currently working on the collection of performance data from scientific workflows, and the modeling/creation

Now of a repository for these data.

Tools: Pegasus WMS, Python, InfluxDB, RabbitMQ, Shell Scripting, Git

Oct. 2014 | Cententia S.A – Software Engineer

I worked with the AroTRON team, designing and developing components of Cententia's eCRM solution.

Core developer of the MIS Report Designer and Data Integration Modules.

OCT. 2016 Tools: C#, SQL Server, HTML, CSS, Javascript, Kendo UI, Perforce, Visual Studio, JIRA, Confluence

#### Teaching Experience

Fall 2015 Lab assistant for the undergraduate course of Introduction to Programming at school of ECE, NTUA

Assisting students with their programming assignments.

Fall 2014 Lab assistant for the undergraduate course of *Operating Systems* at school of ECE, NTUA

Assisting students with course material and their programming assignments.

#### • NTUA Diploma Thesis

The goal of my Diploma thesis was the design of an anomaly detection system for compute nodes. In the course of this project, I evaluated the application of existing distributed implementations of anomaly detection algorithms bundled in the Apache's Spark MLlib. Then I tested and implemented a version of the Robust PCA algorithm in Spark, that was staging in data from an HBASE cluster and annotating anomalies on its output. Tools: Apache Spark, Apache HBase

#### • BleSense

BleSense was a research project of the *Electronic Circuits Lab* of ECE (NTUA), supervised by the Assistant Professor Paul P. Sotiriadis. Our main goal was the design and implementation of a wireless network of sensors for the IoT era. I contributed to the firmware design of the embedded devices, and I designed an on-line platform that stores and visualizes the data. As of **October 2016**, one of the products developed by our team, is being used by Orphee Beinoglou (Intl. Forwarding and Logistics S.A.).

# Course Projects

Fall 2017 | "Advanced Data Stores" (USC)

Evaluation of Oracle's Sharding and JSON capabilities with the use of the YCSB and NoBench

benchmarks.

Technologies Used: Python, Java, Git

Spring 2015 | "Software Engineering" (NTUA)

Addition of new functionalities to the SIP Communicator and JAIN SIP Proxy server.

Technologies Used: Java, MySQL, Git

FALL 2014 | "Programming Languages II" (NTUA)

Implementation of a type inference system for the simply typed lambda calculus.

Technologies Used: Haskell, Linux, Shell Scripting

FALL 2014 | "Parallel Processing Systems" (NTUA)

Implementation and performance analysis of parallel algorithms that solve Thermal Equilibrium.

Technologies Used: C, Linux, MPI, OpenMP, CUDA, Shell Scripting, Git

Spring 2014 | "Compilers" (NTUA)

Implementation of lexical and syntactical analysis for the imperative C-like programming language

Pazcal<sup>b</sup>.

Technologies Used: OCaml, ocamllex, ocamlyacc, Shell Scripting, Git

SPRING 2014 | "Operating Systems Laboratory" (NTUA)

Linux device driver modification and implementation of a virtual crypto device in QEMU-KVM.

Technologies Used: C, Linux, QEMU-KVM, VirtIO, Shell Scripting, Git

#### SKILLS

Programming Languages: C/C++, C#, Java, OCaml, Haskell, Scala, Python, PHP, Bash Scripting, SQL

Web Technologies: HTML, CSS, Javascript, Ajax, Kendo UI, Bootstrap

Databases Systems: SQL (MySQL, SQL Server), NoSQL (HBase, MongoDB, InfluxDB)

Operating Systems: GNU/Linux, MS Windows, Android

Tools: Git, GDB, Valgrind, VIM, Visual Studio, LATEX, JIRA, Confluence, Wireshark

#### Languages

Greek: Mother tongue

ENGLISH: IELTS (June 2016): Band 7.5

University of Michigan ECPE — CEFR Level C2

French: Diplôme d'études en langue française (DELF) — CEFR Level B1