George Z. Zachos

M.Eng. Student in Computer Science & Engineering

General Information

Military Duty:
Not Served
Family status:
Single

Contact

gzzachos@gmail.com
gzachos@cse.uoi.gr

Website

gzachos.com

Social Links

LinkedIn
GitHub
ResearchGate

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Education

2013-Present **M.Eng. in Computer Science and Engineering** — University of Ioannina
Integrated master's programme at the Computer Science & Engineering Department (*CSED*), School of Engineering, University of Ioannina (UOI).

Language Skills

Greek — **Native Language**

English — **Excellent Knowledge** — C2
Certified by: University of Michigan (November 2010)

Work Experience

10/2013-02/2016 **Computer and Network Technician** — CSED, University of Ioannina
The Computer Systems Support Group provides assistant work in the management of departmental computing resources, develops software applications for departmental use & aids in the operation of educational computer laboratories.

Research Groups

02/2015-Present **Parallel Processing Group (PPG)** — CSED, University of Ioannina
PPG's main research interests lie in the area of parallel and distributed systems. For more information visit: paragroup.cse.uoi.gr

Projects

09/2017-08/2018 **PRACE-5IP** — Greek Research & Technology Network (GRNET)
I participated as a parallel programming instructor in the first year of operation of the *PRACE* Training Centre (PTC) established by *GRNET*. For more information about the Partnership for Advanced Computing in Europe (*PRACE*) visit: prace-ri.eu

Teaching Assistance

2017-2019 **Systems Programming (core undergraduate)** — CSED, University of Ioannina
Semesters: Fall 2016, 2017, 2018, 2019

Programming Skills

- General-purpose programming: `C`, `Java SE`, `Python`
- Shells: `Bash`, `Bourne Shell`
- Parallel programming: `POSIX threads`, `OpenMP`, `MPI`
- Systems programming: `Linux`, `Unix`
- GPIO library: `WiringPi` (for Raspberry Pi)
- Scientific computing: `GNU Octave`
- Other tools: `Portable Hardware Locality (hwloc)`

I am also familiar with `MIPS Assembly`, `C++`, `Haskell`, `OpenGL`, `Unity3d` and `HTML5`.

Computing Skills

- Android application black box testing: Simple Password Vault Application
- Backup Tool: Attic
- Databases: Round Robin Database (*RRDtool*)
- Hypervisors: VMware ESXi, VMware Workstation, VirtualBox
- Operating Systems: GNU/Linux (*Debian-based distributions*)
- Server Administration: Debian $\geq$8, Ubuntu 14.04, VMware vSphere 6, Raspbian
- Single Board Computer: Raspberry Pi
- Version Control System: Git, Gitolite (Git Repository Hosting)

Software Projects

06/2016-Present **OMPi compiler** — Parallel Processing Group, CSED, UOI
An open source OpenMP compiler and runtime system for C.
A major contribution of mine was the implementation of hardware topology detection and of thread affinity policies according to the OpenMP specifications. For more information visit: cse.uoi.gr/~ompi

16-20/04/2016 **Implementation of FSS policy in MINIX** — CSED, University of Ioannina
During the Operating Systems course, I extended the system kernel of MINIX 3.2.0 to support the fair-share scheduling (FSS) policy.

01/2015-02/2016 **Aeolus Logger** — Computer Systems Support Group, CSED, UOI
This project is about the implementation of a logging system and it's integration with Emerson cooling units, so that it can be used to monitor the environmental conditions of the cluster room in CSE Department.

Repositories

- Backup-script [*BASH*] - https://gzachos.com/backup-script
  - A shell script that backups the directories specified in the configuration section and manages old backup files.
- Door-monitor [*C*] - https://gzachos.com/door-monitor
  - Door status monitoring and email notification system using Raspberry Pi.
- Airtemp-lcd [*C*] - https://gzachos.com/airtemp-lcd
  - Display air temperature retrieved by a DS18B20 sensor in an HD44780 LCD using Raspberry Pi.
- Ai-course-uoi [*C*] - https://gzachos.com/ai-course-uoi
  - A-star, Uniform Cost Search (UCS) and Minimax algorithm implementation.
- Rpi-cputemp [*BASH*] - https://gzachos.com/rpi-cputemp
  - Tutorial on monitoring CPU temperature of Raspberry Pi via web interface; data logging and plotting using RRDtool.
- Cgis-course-uoi [*C++*] - https://gzachos.com/cgis-course-uoi
  - OpenGL application for polygon drawing, coloring, clipping and 3D extrusion.
- Nla-course-uoi [*C, Octave*] - https://gzachos.com/nla-course-uoi
  - Implementation of the Cholesky decomposition, Steepest Descent and Conjugate Gradient method for solving linear systems (Work-In-Progress).
- Compilers-course-uoi [*Python*] - https://gzachos.com/compilers-course-uoi
  - A compiler implementation for a minimal programming language that has borrowed its characteristics from C and Pascal, targeting the MIPS32 ISA.

Honors and Awards

21/10/2016 **Recognition Award** CSED, University of Ioannina
The Dean of the Department of Computer Science and Engineering awarded me for my contribution to the Computer Systems Support Group.

19/11/2015 **Contribution Award** Greek Free and Open Source Software Society
Awared for the localization of Elgg social networking engine.

Organizations

6/2014-Present Greek Free and Open Source Software Society (GFOSS)

9/2014-Present Institute of Electrical and Electronics Engineers (IEEE)