# George Z. Zachos

## Senior Software Engineer at Teracloud

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

**Websites**
gzachos.com
cse.uoi.gr/~gzachos

**Social Links**
LinkedIn
GitHub

**Military Service**
Fulfilled
09/2021 - 06/2022
32nd Marines Brigade
Hellenic Army

**Languages**
Greek: Native
English: C2 (2010)

Last updated:
December 21st, 2024

## Education

2013-2021 | **M.Eng. in Computer Science and Engineering** — University of Ioannina
Master of Engineering program at the Computer Science & Engineering Department (*CSED*), School of Engineering, University of Ioannina (UOI). Thesis: "Topology and synchronization in OpenMP for manycore NUMA systems"

## Work Experience

01/2025-Present | **Senior Software Engineer** — Teracloud, Athens

07/2024-12/2024 | **Senior 5G Telecom Software Engineer** — Nokia, Athens

07/2022-06/2024 | **Junior 5G Telecom Software Engineer** — Nokia, Athens
Development of new Fixed Wireless Access (FWA) 5G products.

## Volunteer 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.

## Research Groups

02/2015-09/2021 | **Parallel Processing Group (PPG)** — CSED, University of Ioannina
PPG's main research interests lie in the area of parallel and distributed systems. I was also the lead system administrator of PPG since 2016.

## Research Projects

09/2017-08/2018 | **PRACE-5IP** — National Infrastructures for Research & Technology (GRNET)
Participated as a parallel programming instructor in the *Partnership for Advanced Computing in Europe* Training Centre established by *GRNET*.

## Teaching Assistance

2016-2021 | **Systems Programming (core undergraduate)** — CSED, University of Ioannina
The C programming language and POSIX systems programming using C. Semesters: Fall 2016, 2017, 2018, 2019, 2020 (remote due to COVID-19)

# Programming Skills

- General-purpose programming: `C`, `C++`, `Java SE`, `Python`
- Shells: `Bash`, `Bourne Shell`
- Parallel programming: `POSIX threads`, `OpenMP`, `MPI`
- Systems programming: `GNU/Linux`
- GPIO library: `WiringPi` (Raspberry Pi)
- Scientific computing: `GNU Octave`
- Miscellaneous: `hwloc`, `MIPS Assembly`

# Computing Skills

- Databases: Round Robin Database (*RRDtool*)
- Hypervisors: VirtualBox, VMware ESXi, VMware Workstation
- Operating Systems: GNU/Linux (*Debian-based distributions*)
- Packet Analyzer: Wireshark
- Server Administration: Debian, Raspberry Pi OS, CentOS
- Single Board Computer: Raspberry Pi
- Version Control: Git, Gerrit (Code review), Gitolite (Git Repository Hosting)
- Miscellaneous: `MQTT`, Jira, Confluence, `Microsoft 365`

# Software Projects

06/2016-09/2021 **OMPi compiler**                    Parallel Processing Group, CSED, UOI
Open source OpenMP compiler and runtime system for C. Among others, I implemented a NUMA-aware barrier, the OpenMP places and OpenMP processor binding policies. For more information visit: cse.uoi.gr/~ompi

02/2018-02/2021 **MARS Stack Visualizer**                    CSED, University of Ioannina
A tool for MIPS Assembler and Runtime Simulator (MARS) that allows real time visualization of stack segment modification operations.

01/2015-02/2016 **Aeolus Logger**                    Computer Systems Support Group, CSED, UOI
A logging system integrated with Emerson cooling units, that monitors the environmental conditions of the cluster room in CSE Department.

# Repositories

- Backup-script [*BASH*] - gzachos.com/backup-script
    - A shell script that backups the directories specified in the configuration section and manages old backup files.
- Door-monitor [*C*] - gzachos.com/door-monitor
    - Door status monitoring and email notification system using Raspberry Pi.
- Nla-course-uoi [*C, Octave*] - gzachos.com/nla-course-uoi
    - Implementation of the Cholesky decomposition, Steepest Descent and Conjugate Gradients methods for solving linear systems.
- Compilers-course-uoi [*Python*] - 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.
- Cgis-course-uoi [*C++*] - gzachos.com/cgis-course-uoi
    - OpenGL application for polygon drawing, coloring, clipping and 3D extrusion.

For a full list of my publicly available repositories visit my GitHub profile.

# Honors and Awards

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|---|---|---|
| 09/05/2022 | **Honorary Distinction & Service Award** | 32$^{nd}$ Marines Brigade, Hellenic Army |
| | Promoted to the rank of lance corporal and awarded the "Prosperous Service Award" for demonstrating ethos and excellence during service. | |
| 21/10/2016 | **Recognition Award** | CSED, University of Ioannina |
| | The Dean of CSED awarded me for my contribution to the Computer Systems Support Group. | |
| 19/11/2015 | **Contribution Award** | Greek Free and Open Source Software Society |
| | Awarded for the localization of Elgg social networking engine. | |

# Seminars and Panels

### PARTICIPATED AS A SPEAKER

| | | |
|---|---|---|
| 2023 | **2$^{nd}$ Alumni Day** | CSED, University of Ioannina |
| | Participated in the "Companies and Entrepreneurship" panel. | |
| 2014 | **University of Ioannina IEEE Student Branch** | Ioannina |
| | Participated in two seminars covering various GNU/Linux-related topics. | |

# Organizations

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