



## Andreas Loizides

**Date of birth:** 16/07/2000 | **Nationality:** Cypriot | **Gender:** Male | **Email**

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**Address:** Vasiliias 35, 2232, Nicosia, Cyprus (Home)

### WORK EXPERIENCE

15/06/2019 – 12/09/2021 Nicosia, Cyprus

**SOFTWARE ENGINEER** O.H.ORTHOHOUSE LTD

#### Development and deployment of in-house synchronization system

System that synchronizes the company's products, from its logistics system *Powersoft365*, to its website on *Shopify*. Communication between the two services is done with their respective REST APIs (and specific functions of Shopify's GraphQL API).

System is comprised of a **Swift cloud application** using *Vapor* as the back-end and an **iOS app** as the front-end. Front-end provides information about the synchronization (new, updated products, inventory updates) and allows customizations about the process (i.e overrides for specific products, on-demand sync of specific models, sync scheduling). Data is stored on **Google Firebase**. For the development and maintenance, unit tests were implemented for major functions.

#### Intuitive iOS App for inventory management

App that, through barcode scanning of a product, allows the user to modify the stock count on the logistics system (*Powersoft365*) using their REST API.

Makes registering new products' inventory count more productive. Checking or verifying a product's count on the system intuitively fast as only a phone with an internet connection is needed.

#### General computer maintenance

Remote management of PCs using SSH and **Ansible**.

#### Digital Ad slideshow using Raspberry Pis

Wrote a simple Bash script to display content (videos and slideshows) on spare TVs using Raspberry Pis. Script was deployed remotely using Ansible. The displayed content is easily changed remotely through SSH.

### EDUCATION AND TRAINING

03/09/2019 – CURRENT Nicosia, Cyprus

**B.SC IN COMPUTER SCIENCE** University of Cyprus

My degree in Computer Science provided me with a strong foundation in both theoretical concepts and practical techniques, with programming assignments being a particular highlight. I excelled in applying my knowledge to solve real-world problems and enjoyed the challenge of learning new programming languages, including Java, C, Python, Swift, PHP, Javascript, Go, and SQL.

As part of my research project, I am evaluating Swift as a serverless programming language and contributing to the open source community by updating the Swift runtime for OpenWhisk. My work involves investigating Swift's potential as a Function as a Service (FaaS) language. Swift seems very promising because of qualities such as speed, efficiency, and safety, which are crucial in FaaS contexts (as FaaS platforms charge by resource usage and execution time).

Throughout my studies, I covered a range of topics in both theoretical and applied Computer Science:

#### *Theoretical Computer Science*

Discrete Mathematics, Digital Systems, Theory of Computation, Computer Organization, Data Structures, Algorithms and Complexity, Linear Algebra, Calculus, Statistics, Programming Principles, Object-Oriented Programming, Boolean Algebra, System Security, Parallel Processing

#### *Applied Computer Science*

Operating Systems, Communication and Networks, Artificial Intelligence, Database Systems, Software Engineering, Logical Programming, Assembly Programming, Internet and Web Technologies, Mobile Computing, Cloud Computing

I believe that a solid understanding of these foundational topics is essential in any field of Computer Science.

In addition to my coursework, I have developed strong transferable skills such as effective oral and written scientific communication, organization and planning of group work, and independent research. I have also gained experience in team collaboration and leadership through my participation and leadership in team projects. Notable projects I have led include a business proposal of an AI-powered dashcam, an app for a platform for finding private tutors, and an app for a micro-blogging service. These projects enriched my practical technical skills in developing websites and applications, integrating databases and cloud technologies, resolving conflicts, dealing with deadlines and unexpected issues, avoiding and dealing with miscommunication and working with team members of different skillsets. Worth mentioning is that as part of the Warehouse-scale Computing class, I learned how to split a monolithic application into microservices for easier scaling.

**Address** Nicosia, Cyprus | **Website** [ucy.ac.cy](http://ucy.ac.cy) | **Field of study** Information and Communication Technologies |

**Level in EQF** EQF level 6 | **National classification** 6 | **Type of credits** ECTS | **Number of credits** 243 |

**Thesis** Developing and Evaluating Serverless Applications with Swift in Apache OpenWhisk

25/03/2023 – 02/04/2023

**PARTICIPATED IN THE JOINT ADVANCED STUDENT SCHOOL 2023** Jetbrains, TUM

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1. Program focused on project-driven education in emerging technologies
2. Participated in the 2023 program focused on smart context-sensitive traffic control and continuous software evolution technologies for cyber-physical systems
3. Worked in an international team of students and professors from the Technical University of Munich, Imperial College London, and Neapolis University Pafos
4. Developed projects using real hardware equipment, including self-driving cars and smart traffic lights guided by AI
5. Gained hands-on experience in core technologies, including Linux, ROS, Docker/Kubernetes, Matter/Thread, Duckietown, and Python.

**Website** <https://jass.school>

02/02/2023

**IELTS BAND 8.5/9**

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03/07/2018 – 03/09/2019 Cyprus

**RESERVE OFFICER - 2ND LIEUTENANT** Cyprus National Guard

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**Address** Cyprus

08/08/2018 – 30/11/2018 Greece

**OFFICER CANDIDATE** Hellenic Armed Forces

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**Address** Greece | **Website** [seap.army.gr/](http://seap.army.gr/)

01/06/2017 – 15/09/2017

**GOETHE ZERTIFIKAT B1** Goethe Institut

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01/09/2015 – 26/06/2018 Cyprus

**UPPER SECONDARY GENERAL EDUCATION (APOLYTERION)** Ministry of Education and Culture

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**Address** Cyprus | **Website** [moec.gov.cy](http://moec.gov.cy)

01/09/2017 – 05/05/2018

**CCNA ROUTING AND SWITCHING: ROUTING AND SWITCHING ESSENTIALS** Cisco Systems, Ltd

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**Website** [cisco.com](http://cisco.com)

Website [cisco.com](https://www.cisco.com)

## LANGUAGE SKILLS

Mother tongue(s): **GREEK**

Other language(s):

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken production	Spoken interaction	
<b>ENGLISH</b>	C2	C2	C2	C2	C2
<b>GERMAN</b>	B1	B1	B1	B1	B1

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

## DIGITAL SKILLS

### Cloud Computing

Docker | Serverless Computing | Ansible | Swift Web Apps | Go Web Apps | Microservices Architecture | OpenWhisk | Kubernetes | gRPC

### Languages

Swift | Java | C | Python | JavaScript | SQL

### Mobile App Development

SwiftUI | Google Firebase | Familiar with Flutter | Basic knowledge of MVC and MVVM architectures | iOS App Performance Profiling | Local and Remote Data Persistence | Unit Testing

### General

Bash Scripting | Git | Functional Programming | Object-Oriented Programming | GraphQL | HTML | CSS | JSON | REST

## ADDITIONAL INFORMATION

### HOBBIES AND INTERESTS

#### Swift App Development

1. Development, testing and implementation of cross-platform (macOS, iOS, iPadOS, watchOS) Swift apps using SwiftUI and UIKit.
2. Writing and maintaining readable code and descriptive functions.
3. Composing complex user interfaces in SwiftUI and division into small, independent custom View structures.
4. Experiment with new technologies announced each year at Apple's WWDC, especially those involving SwiftUI.
5. Performance evaluation of Swift Apps using Xcode profiling tools (i.e. identifying causes of stuttering, ensuring smooth animations).
6. Developing apps using the MVVM and MVC architecture.
7. Ensuring high performance, utilizing multithreaded programming for intensive workloads, while ensuring thread-safety. Synchronization using Dispatch's DispatchGroups.
8. Preventing and identifying multithreading pitfalls such as data races and deadlocks.
9. Full-stack App development with a Swift back-end for common code libraries and code reuse.
10. Using Google's Firebase for authentication, database, back-end functions.
11. Data persistence and consistency across devices using Apple's CloudKit.

#### Serverless Computing

1. Experimenting with cloud technologies for developing high performance web apps that make for a highly reliable and responsive back-end.

2. Developing, testing and implementing serverless solutions using the OpenWhisk open source framework.
3. Division of code into loosely coupled units that allow for independent testing and evaluation.
4. Converting complex procedures into stateless functions.

### **Running**

1. Weekly running with diverse types of running (speed runs, interval-based runs, long runs).
2. Marathon training for 5 months, relying entirely on self-discipline (but marathon was cancelled in the end due to COVID measures).
3. My longest run was 27km.
4. Through my love for running, I have learned the values of discipline and perseverance

### **Swimming**

1. Bi-weekly swimming lessons since I was 3.5 years old.
2. Love swimming in the open sea in summer.
3. Lifeguarding principles and techniques.