

GRIGORIS MANTAOS

SOFTWARE DEVELOPER, HARDWARE DESIGNER
AND NETWORK ENGINEER

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Profile

Highly motivated and capable full-stack developer and solution architect, always on the lookout for new technologies and problems to solve. With a broad understanding of computer systems and the underlying hardware and networking, the goal as a professional and enthusiastic hobbyist, is to design and implement the optimal solution to each and every problem and use case. Having in-depth education, as well as strong interest in every aspect of Computer Science, my field of knowledge extends from the design of digital circuits, to the implementation of computer systems and all the way up to the utilization of computers through operating systems, software and digital communications.

Skills

VLSI

Structural design of digital circuits in VHDL. Experience in Xilinx ISE, Vivado and deploying on FPGAs and SoCs.

Networking

Routers, bridges, switches, VLANs, VPNs, Firewalls, diagnostics, monitoring, DNS and network security.

Linux

Skilled in the operation and administration of UNIX operating systems, as well as development of kernel modules.

Software Engineering

Proficiency in architecture of software solutions, dependency management, data structures and complexity.

Embedded Systems

Professional experience in the development of embedded systems and hardware access layers.

Machine Learning

Regression, neural networks, convolutional neural networks, LSTMs etc.

Languages

C#

HTML

Java

Rust

Assembly (8086, AVR, ARM)

Go

C

Python

PHP

Haxe

JavaScript

C++

VHDL

Prolog

Tools

Unity3D

Git

Gitlab CI

VMWare ESXi

Xilinx ISE

Jenkins

Docker

Vivado

Ansible

Award

Machine Learning Hackathon - 1st place Deutsche Telekom Services Europe

May 2019

Won 1st place, with the prize of 1,500€ and a trip to Bonn, Germany, at the DTSE Hackathon held in Brno. The challenges included building a text classifier, an NLP application and tackling a credit forecast problem with Machine Learning and statistics.

Experience

Siemens

Development Engineer | Prague, Czech Republic

Dec 2018 - Present

Working in Siemens' Industrial Automation R&D department, participating in the maintenance and development of Failsafe I/O PLC modules. Primarily working in Embedded C++ on STM32 microcontrollers of the Cortex M3/M4 families.

Alexander Moore SA

Software Developer | Athens, Greece

Jun 2016 - Sep 2018

Alexander Moore is the leading SAP Gold Partner in Greece. Working here has included web crawling and data mining, writing big .NET applications, web development, SAP Business One add-on development, training interns and in general taking creative decisions to expand upon the innovative ideas that are conceived by the company's partners. Through working with insurance cases, ERP integrations and MRP optimizations I have come to become familiar with the industry and the business side of technology.

Education

National Technical University of Athens

M.Eng. - Electrical and Computer Engineering (8/10)

2013 - 2018

With what has been a big and thorough 5-year curriculum with over 60 required subjects, I have been above and beyond at understanding the entire spectrum of computer science. This includes designing the basic logic circuits, expanding to arithmetic units and memories, wiring instructions, writing assemblies and designing pipelines for these instructions, designing an operating system, writing the software and wiring the networks all the way from the physical layer to the application layer. During this course I have deployed circuits I've designed on an FPGA, soldered a radio on a circuit board, collaborated on a production-ready web application, written drivers for the Linux kernel, developed a pathfinding application on real map data and much more.

Thesis

Network Topology Automation (10/10)

My diploma thesis revolved around automating and standardizing the large-scale design and deployment of network topologies. By implementing international and leading manufacturer standards, the application that was developed emulates images of existing hardware (like Cisco routers and switches) and is compliant with them. It also manages the distribution of these topologies over the physical resources via VMWare's ESXI hypervisor, as well as automation of the configuration of these virtual nodes with the use of Ansible.

Certification

First Certificate in English (Grade A)

University of Cambridge

Machine Learning

Stanford University on Coursera (LRQ2JNQL6BNP)

Oct 2018

Linear Regression, Logistic Regression, Multiclass Classification, Neural Networks, Support Vector Machines, Clustering, PCA, Anomaly Detection, Recommender Systems.

Neural Networks and Deep Learning

deeplearning.ai on Coursera (H49NTHSWLTHA)

Oct 2018

Hyperparameter tuning, Regularization and Optimization

deeplearning.ai on Coursera (5NK893SX5AEA)

Nov 2018

Convolutional Neural Networks

deeplearning.ai on Coursera (NJA8MRUWKJQL)

Nov 2018

Sequence Models

deeplearning.ai on Coursera (UNVY3YYSHW66)

Nov 2018

Projects

VoiceCom

Virtual conversational agent

Initially a service for submitting sales orders through simple telephone lines, this virtual agent could, in conjunction with an ERP, a database or a REST webhook, provide a fully automated interface for B2B or B2C interactions. The first demo of this project at the SAP SMB Summit in Florida was recorded by SAP Global Director Gianluigi Bagnoli and posted on his Twitter account.

Goirate

Intelligent web crawler for torrent automation

Monolithic CLI tool written in Go, that is used to automate the process of searching the Internet for torrents to various media. Expanding upon the need to keep track of multiple new airings and releases, this tool crawls the web much like a human would, intelligently going through search results or multiple mirrors, in the event that some are unavailable.

Quermine

SQL object serializer and query builder

2018

This library offers a significant abstraction over integrating with a relational database in a .NET application. What started out as a personal wrapper for convenient async operations and MySQL type conversions, later became an intuitive query builder and object serializer. With this library, one can easily integrate their classes with database tables in minutes, without writing a single query.

Commander.NET

Command-line argument parser

2018

A powerful and easy to use library that allows parsing command-line arguments as custom serializable objects. By best utilizing the reflection properties of the .NET framework, this parser supports recursive command definitions, usage summary generation and even an interactive command line shell.

Chance.NET

Generator for valid and plausible random data

2017

Originally ported from its JavaScript equivalent, Chance.js, this library aims to provide painless integration with anything that needs legitimate and mathematically accurate random data. Particularly useful when writing unit tests or to rapidly populate development databases.

Haxe Libraries

Several published libraries for the Haxe programming language.

A Quad-tree collision detection system, a 2D A* solver, an event scripting engine and a reliable communication protocol over UDP.

Other

Game Development

A big fascination of mine for long time has been learning new frameworks and libraries by creating games from scratch. It started out with weekend-projects on game engines like Unity3D and Godot and later moved on to lower level frameworks like Phaser, LOVE and primarily Monogame. Developing physics, collision detection systems, scene rendering hierarchies and more from scratch, has been one of the most educating and fun experiences. Most recently I won first place at the online game jam JamCraft 4 with my submission Valchemy.

Afternoiz.com

Writer, correspondent and interviewer

2014 - 2018

Being passionate about music, one of my side activities has been writing articles and covering concerts on behalf of this website. Having written promotional article for bands, reports for around 40 concerts and having interviewed some of my favorite bands, participating in this has taught me how to compose my thoughts into text, be respectful of people's opinions and collaborate with others.

References

Vangelis Kanelopoulos

Managing Partner, Alexander Moore

April 28, 2018

"Grigoris ranks within the top 2% of professionals I have ever worked with, despite his young age. What is most admirable about Grigoris is how easily and deeply he understands business requirements and use technology in order to deliver unique and tangible results. Together we have worked in a number of innovative projects that combine AI, NLP, Virtual Agents, Sentimental Analysis and SAP Solutions. In all cases he excelled and was able to provide top results within strict deadlines."