PERSONAL DETAILS

Name:	Charalampos (Haris) Andrianakis
Date of birth:	March 22nd 1990
E-mail:	haris < at > candrian.gr
Mobile:	(+30) 6945676600
Blog:	www.candrian.gr (my open source projects)
Github:	https://github.com/candrian (on gitlab my private repos)
Military Service:	Accomplished (Sept 2013 – Jun 2014)

EDUCATION

2008-2012

Bachelor of Science, Electronic Computer Systems Engineering
Piraeus University of Applied Sciences, Greece
Thesis: **Power Line Communication**

CURRENT INTERESTS

- Embedded Systems & Prototyping
- Reverse Engineering & Testing
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EXPERIENCE

2020 - present

Embedded Systems Engineer
Theon Sensors S.A., Athens

As part of the RnD Electronics team I'm responsible for the circuit, PCB but also firmware design and development for projects which include, high speed signals, multilayer PCBs, rigid-flex PCBs, flex PCBs, different types of special sensors, embedded microprocessors, and FPGAs but also application processors. Most of the projects are battery powered so special attention is always taken in the power supply design and efficiency to achieve the maximum possible battery life. Further to the electronics design I'm also included in the product housing design where I contribute to the design and routing of flex PCBs in the interior of the product but also define the PCBs outline and the connectors placement according to the available space in the optimal way for easy assembly and best electronics routing.

2018 - 2020

SDAN QA Engineer (Software Defined Access Networks)
Nokia, Greece, Athens

As part of the Agile testing team, I'm responsible for testing different product features using Robot, Jenkins and custom internal automation tools. Also responsible for setting up lab test environments and network configuration. Microservices & Docker containers.

Patent implementation (EP3035729A1)

Within internal innovation program a colleague and I started an internal startup where we designed and built from scratch an RF shielded box able to test in real conditions the handover mechanism of 2G, 3G, 4G and 5G networks as well as wifi

2016 – 2018

SDAN R&D Engineer (Software Defined Access Networks)
Nokia, Greece, Athens

As part of incubation team responsible for the design, specifications standards, prototypes, testing and demo setups of software defined access networks product.

2014 – 2016

R&D Engineer
Nokia, Greece, Athens

SyVe/NeVe, Responsible for the testing of software programs for interfaces, protocols and network layer services of real-time telecommunications systems according to customer requirements.
Cloud activities, as part of a team we manage to set up and maintain open source (OpenStack) cloud system for the team needs.

2012 – 2013

Embedded Systems Engineer
Delmac Instruments, Greece, Athens (www.delmac.gr).

Designed/Developed a thermal receipt printer, hardware driver. An embedded system, which manages to drive the thermal printer head and motors. Features: Barcode, font, font-size, bitmap, and labels.
Designed/Developed a digital adjustable spirit level indicator used for tank level indication

2009 – Present

Website Developer - Contractor

Develop websites for businesses in Greece. Utilizing several web technologies including: PHP, MYSQL, HTML, CSS, XML, JavaScript

BEYOND DAILY JOB

Embedded Systems

2020

- Digital lead screw for my mini Lathe
  This is a system that measures the spindle's rpm and controls a step motor which drives the lead screw according to the user threading preferences.

2019

- IoT Gateway
  MQTT broker, Wifi Access point, uart forwarder, web portal for configuration and automatic app health checks and remote management

2018

- Autonomous automatic watering system for gardening using wifi, mqtt and cloud technologies.

2017

- Fuel Flow Sensor
  This is a device measuring the fuel flow designed for marine use with functions of calculating remaining fuel in tank, trip total cost, fuel flow rate per nautical mile as well as per hour. High accuracy of 0.46ml

2012

- Power Line Communication
  Within my Thesis I designed/ developed a pair of communication devices, which manage to transfer data over the Power Lines including error correction.

2012

- Vacuum Fluorescent Display Tube (IV-12/11) Real Time Clock-Alarm.
  The design includes onboard voltage booster as well as automatic brightness adjustment. Least chip implementation using only, a microcontroller in combination with a high voltage shift register.

2011

- Digital Thermometer with Bluetooth Data Transmission.
  Two-zone thermometer as well as humidity sensor. Pioneer PCB design including wall mount key-type holes.

2010

- Autonomous GPRS Logging System.
  Collect and send data logs to a remote web server using GSM.

CERTIFICATES

- Certificate of competency in English, University of Michigan

HOME LAB

Electronics: Bench Power Supply, Function Generator, DC Load, Spectrum Analyzer, Oscilloscope, Soldering Station, Hot air station, Stereoscopic microscope, Thermal Camera

Hardware: 3D printer, Mini Lathe, and a bunch of electric/battery powered and hand tools.

SKILLS

Languages: C, C++, PHP, HTML, CSS, MYSQL, x86 Assembly, AVR assembly, PIC assembly, Linux Shell Scripting, Python
Operating Systems: Microsoft Windows, Linux, Unix, Solaris, Mac OS X
Embedded OS tools: Buildroot, Uboot, Flash memory & MTD
Virtualization: Openstack, VMware ESXi, Docker Containers, Qemu
Lab Equipment: Oscilloscopes, Function/Waveform generators, DC Loads, Power Supplies, Spectrum Analyzers, Logic Analyzers, IC Programmers
Hardware tools: CNC, 3D Printers, Lathes, Milling machines
CAD/CAM: Eagle, Altium, Solidworks, Fusion 360