Europass
Curriculum Vitae

Personal information

First name(s) / Surname(s)	**Matteo Zini**
Address(es)	------------------
Telephone(s)	------------------ Mobile: ------------------
E-mail	------------------
Skype	------------------
Nationality	
Date of birth	------------------
Gender	

Work experience

Dates	**September - October 2017**
Occupation or position held	**Internship**
Main activities and responsibilities	Assistance for the creation of documentation for the courses of the school. Research and preparation of teaching material and setup of online platforms for the courses of the school.
Name and address of employer	Scuola Nazionale Trasporti e Logistica, 1, Via del Molo, 19126 La Spezia (SP)
Type of business or sector	Education

Education and training

Dates	**October 2020 – in progress**
Title of qualification	**PhD in Emerging Digital Technologies – Curriculum: Embedded Systems**
Name and type of organisation providing education and training	ReTiS Lab, TeCIP Institute, Scuola Superiore Sant'Anna, Pisa (PI), Italy
Principal subjects/occupational skills covered	Resource reservation, partitioning and virtualization in hypervisor-based real-time embedded systems, with a focus on memory and cache contention between I/O devices and CPU cores. Practical and theoretical work on memory bandwidth limitation on ARM platforms, both with software and hardware-based solutions, such as the MPAM ARMv8 extension on the ARM QoS-400 regulators.
Attended courses	Linux kernel programming, Real-time and high-performance computing on Linux, Virtualization techniques, Advanced operating systems, Functional programming techniques, System-level cybersecurity, Safe system programming.
Dates	**1st February 2021**
Title of qualification	**State examination for the qualification to the profession of engineer (Information engineering)**
Name and type of organisation	Università di Pisa, Italy
Dates	**September 2018 – September 2020**
Title of qualification	**Master's Degree in Embedded computing systems (in English) – Vote: 110/110 cum laude**
Thesis title	Hardware-assisted memory isolation in hypervisors for multicore real-time systems

Principal subjects/occupational skills covered	Real-time and distributed system, Digital control systems and mechatronics, Dependable and secure systems, Design of embedded systems, Optimization methods, Computer architecture, Digital systems, Computational intelligence, Virtual and augmented reality, Industrial applications, Component based software design, Internet of things, Robotics.
Name and type of organisation providing education and training	Scuola Superiore Sant'Anna and Università di Pisa, Italy
Level in national or international classification	ISCED (2011) - 7

Dates	**September 2015 – July 2018**
Title of qualification awarded	**Bachelor's Degree in Computer Engineering – Vote: 110/110 cum laude**
Thesis title	Algoritmo per la rilevazione delle fasi del passo mediante scarpe sensorizzate (Gait phases detection algorithm through sensors provided shoes)
Principal subjects/occupational skills covered	Maths, Physics, Electronics, Programming, Computer architecture, Operating systems, Computer networks, Signal Processing, Software engineering, Control theory, Databases.
Name and type of organisation providing education and training	Università di Pisa, Italy
Level in national or international classification	ISCED (2011) - 6

Dates	**September 2010 – July 2015**
Title of qualification awarded	**Scientific high school degree - Vote: 100/100 cum laude**
Principal subjects/occupational skills covered	Maths, Physics, Science, Italian language and literature, English language and literature, Latin language and literature, Philosophy, History, Geography, Art history and technical drawing.
Name and type of organisation providing education and training	Liceo Scientifico Statale A. Pacinotti, La Spezia (SP), Italy
Level in national or international classification	ISCED (2011) - 3

Personal skills and competences

Mother tongue(s)	**Italian**

Other language(s)

Self-assessment

European level (*)

	Understanding			Speaking				Writing	
	Listening		Reading		Spoken interaction		Spoken production		
English	C1	Proficient user	C1	Proficient user	C1	Proficient user	C1	Proficient user	C1	Proficient user
	Certificate in Advanced English (C1) obtained in 2014								
French	A1	Basic user	A2	Basic user	A1	Basic user	A1	Basic user	A1	Basic user

(*) Common European Framework of Reference for Languages

Social skills and competences	Ability to organize work with the other members of a team, acquired during the group projects at university and the internship at Scuola Nazionale Trasporti e Logistica in La Spezia
Organisational skills and competences	Business organization and project development skills acquired during the "Economy and business organization" and "Industrial applications" courses at university.
Technical skills and competences	Familiar with UML diagrams used in multiple courses at university.

Computer skills and competences	Programming Languages: C/C++, AArch64 and x86 assembly, Java, Python, PHP, Javascript, SQL, HTML, Rust. Experience with real-time embedded systems and virtualization/hypervisors. Practical experience with the Ultrascale+ and iMX8 systems on chip. Hardware design languages: VHDL. Experience with the Git version control tool and LaTeX. Basic knowledge of the Qt framework. Familiarity with the Matlab and Simulink environments. Operating Systems: Windows, Linux. Databases: MySQL and ER diagrams Fundamentals of Cisco network devices configuration Familiarity with the MS Office suite (Word, Excel, PowerPoint, Outlook, Project, Visio, Teams) Basic knowledge of CAD programs (16 hours course in 2015) and Photoshop.
Driving licence	Category B

Additional information

Publications	Zini M, Cicero G, Casini D, Biondi A. Profiling and controlling I/O-related memory contention in COTS heterogeneous platforms. Softw Pract Exper. 2022;1-19. doi: 10.1002/spe.3053 Presented at the 6th Italian Workshop on Embedded Systems (IWES 2021), Rome
Artiles currently under review	Zini M., Casini D., Biondi A. Analyzing ARM's MPAM From the Perspective of Time Predictability.

I hereby consent to the processing of the data I provided in this CV in accordance to the Regulation of the European Parliament 679/2016.
In accordance with the Italian Legislative Decree no. 196/2003 on Personal Data Protection.

Date 2/05/2022