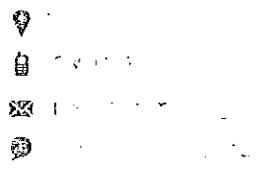PERSONAL INFORMATION   Matteo Dromedari

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Sex | Date of birth | Nationality

WORK EXPERIENCE

03/2015–Present   **Hardware and Software Developer**
Università degli Studi di Urbino, Urbino (Italy)

Incarico di natura professionale come lavoratore autonomo.

Supporto alla ricerca su: reti di sensori alimentate da fonti rinnovabili, sviluppo di elettronica orientata alla sensoristica e alla condivisione delle informazioni, sviluppo di firmware per architetture microcontrollori ARM 32bit, progettazione full custom elettronica ed enclosure, sviluppo software alto livello; presso il dipartimento di Scienze di Base e Fondamenti (DiSBeF).

Progettazione e sviluppo Emulatore energetico VirtualSense Emulator.

01/2015–02/2015
NeuNet (www.neunet.it), Urbino (Italy)

Hardware and Software Developer.

Incarico di natura professionale come lavoratore autonomo.

Ingegnerizzazione piattaforma multisensoriale wireless VirtualSense 32bit

Sviluppo della piattaforma Multi-Sensoriale Wireless VirtualSense (www.virtualsense.it)

07/2013–12/2014
Università degli Studi di Urbino, Urbino (Italy)

Hardware and Software Developer

Progettazione e sviluppo di applicativi finalizzati all'interconnessione di dispositivi mobili e Reti di Sensori Wireless.

Sviluppo di hardware e software orientato a Reti di Sensori Wireless.

Sviluppo di sensori per il calcolo dell'indice ACI (Acoustic Complexity Index) in campo sottomarino

Collaborazione nell'ambito del progetto SmartRoadSense (collaborative road surface condition monitoring).

Collaborazione nell'ambito del progetto OpenSource VirtualSense (www.virtualsense.it)

11/2012–06/2013
NeuNet (www.neunet.it), Urbino (Italy)

Software Developer.

Incarico di natura professionale come lavoratore autonomo.

Sviluppo della piattaforma Multi-Sensoriale Wireless VirtualSense (www.virtualsense.it)

12/2010–11/2012   **Mechanical engineering technician**
TM Racing spa (www.tmracing.it), Pesaro (Italy)

Junior Automotive Technician

05/2010–11/2011

TM Racing spa (www.tmracing.it), Pesaro (Italy)

Part-time assistant of Factory Racing Division

EDUCATION AND TRAINING

09/2007–19/10/2010

Diploma di laurea in Informatica Applicata
Università degli Studi di Urbino, Urbino (Italy)

Curriculum SISTEMI EMBEDDED

10/07/2007

Diploma di perito industriale capotec. specializzazione: informatica
Istituto Tecnico Industriale Statale M. L. Cassata, Gubbio (Italy)

PERSONAL SKILLS

Mother tongue(s)   Italian

Other language(s)

UNDERSTANDING		SPEAKING		WRITING
Listening	Reading	Spoken interaction	Spoken production	
B2	B2	B2	B2	B2

Levels: A1 and A2: Basic user - B1 and B2: Independent user - C1 and C2: Proficient user
Common European Framework of Reference for Languages

Job-related skills

- Competenza nello sviluppo di software per micro-controllori e microprocessori CISC e RISC: PIC, ARM

- Competenza nello sviluppo di dispositivi orientati al basso consumo: Low-power electronics, Ultra Low-power electronics

- Competenza nella interazione tra sistemi mediante tecnologie wireless

- Competenza nella progettazione, sviluppo e caratterizzazione di sistemi elettronici

- Competenza elettronica ed elettrotecnica

- Competenza nella progettazione di sistemi elettro-meccanici

Digital competence

- Competenza avanzata nell'utilizzo dei sistemi operativi: Mac OS, distribuzioni Linux, Windows

- Competenza nei linguaggi di programmazione di base: ANSI C, C++, Java

- Competenza nello sviluppo di applicazioni su piattaforma Android

- Competenza nei linguaggi di programmazione di basso livello: Assembly

- Competenza nello sviluppo di applicativi Web: HTML CSS, PHP, JSP

- Conoscenza base dei linguaggi di descrizione di descrizione dell'hardware (HDL): VHDL, Verilog

- Competenza lettura e interpretazione disegni tecnici e meccanici

- Competenza nell'utilizzo di strumenti CAD: AutoCAD 2D, AutoCAD 3D, KiCAD, SolidWorks

- Competenza di applicativi per il calcolo tecnico: MathWorks - MATLAB

- Competenza ambienti di programmazione grafica: National Instruments - LabVIEW

- Competenza nell'utilizzo di strumenti per l'acquisizione dati: National Instruments DAQs

- Competenza strumenti per la produttività: Microsoft Office, OpenOffice, Libre Office e simili

Driving licence	A, B

ADDITIONAL INFORMATION

Publications	Emanuele Lattanzi, Matteo Dromedari, Valerio Freschi, Roberto Peruzzini, Luca Salvatore Lorello and Alessandro Bogliolo et al. A fast and accurate energy source emulator for wireless sensor networks. EURASIP Journal on Embedded Systems. 03 October 2016.
	http://jes.eurasipjournals.springeropen.com/articles/10.1186/s13639-016-0055-5

Publications	Emanuele Lattanzi, Valerio Freschi, Matteo Dromedari, and Alessandro Bogliolo et al. An Acoustic Complexity Index Sensor for Underwater Applications. IEEE SENSORS JOURNAL, SEPTEMBER 2015.
	http://ieeexplore.ieee.org/document/7163517/

Publications	Giacomo Alessandroni, Lorenz Cuno Klopfenstein, Saverio Delpriori, Matteo Dromedari, Gioele Luchetti, Brendan Dominic Paolini, Andrea Seraghiti, Emanuele Lattanzi, Valerio Freschi, Alberto Carini, et al. Smartroadsense: Collaborative road surface condition monitoring. In UBICOMM 2014, The Eighth International Conference on Mobile Ubiquitous Computing, Systems, Services and Technologies, pages 210215, 2014.
	http://www.thinkmind.org/index.php?view=article&articleid=ubicomm_2014_7_50_10113

Publications	E. Lattanzi, M. Dromedari, V. Freschi, and A. Bogliolo, *A sub-µA Ultrasonic Wake-up Trigger with Addressing Capability for Wireless Sensor Nodes*,ISRN Sensor Networks, vol. 2013, Article ID 720817, 10 pages, 2013.
	http://www.hindawi.com/isrn/sensor.networks/2013/720817/

Publications	E. Lattanzi, M. Dromedari, V. Freschi, A. Seraghiti, and A. Bogliolo, *Demo Abstract: Exploiting Ultra-Low-Power UltrasonicWake-up Triggering for Sensor Nodes Distance Measurements,* in Proceedings of ACM SensSys, 2013.
	http://virtualsense.it/wp-content/uploads/2013/05/SENSYS-demo_2013.pdf

Projects	**A Fast and Accurate Energy Source Emulator for Wireless Sensor Networks**
	2015-2016
	An hardware-software embedded device which can be used to emulate an energy source for wireless sensor nodes. The device is built starting from off-the-shelf hardware components on top of which it is possible to run different energy source models thanks to a dedicated software layer. The main idea of the energy source emulation is to control the voltage and the current supplied to the powered device by means of a digital system in an attempt to follow a modeled energy source.
	http://jes.eurasipjournals.springeropen.com/articles/10.1186/s13639-016-0055-5

Projects	**SmashApp - Smart Online Booking System**
	2015-2016
	A new and smart online booking system. Is the best solution for beaches, tennis clubs, football club, sport club, and all sport organizations that need best experience in managing and user interactions.
	www.smashapp.it

Projects	**An Acoustic Complexity Index Sensor for Underwater Applications (VirtualSense UDSP)**

2014-2015

An hardware-software device to study the acoustic complexity of underwater ecosystems by measuring ACI (Acoustic Complexity Index). The device, is built starting from off-the-shelf hardware components on top of which runs a dedicated implementation of the ACI algorithm. ACI sensor has been designed to sample and process in real-time audio waveforms collected in the underwater environment. In order to enable the ACI sensor utilization in critical and low-power conditions.

http://ieeexplore.ieee.org/document/7163517/

Projects	**SmartRoadSense: Collaborative Road Surface Condition Monitoring**

2014-2015

Monitoring of road surface conditions is a critical activity in transport infrastructure management. SRS (SmartRoadSense) is a system for collaborative monitoring of road surface quality. The overall architecture encompasses the integration of a custom mobile application, a georeferenced database system and a visualization front-end. Road surface condition is summarized through a roughness parameter computed using signal processing algorithms running on mobile devices. The roughness values computed are subsequently transmitted and stored into a back-end geographic information system enabling processing of aggregated traces and visualization of road conditions. The proposed approach introduces a thoroughly integrated system suitable for monitoring applications in a scalable, crowdsourcing collaborative setting.

http://smartroadsense.it/

Projects	**VirtualSense32 evolution of VirtualSense Wireless Sensor Node**

2014-2015

VirtualSense32 is an evolution of predecessor open-hardware open-source VirtualSense Wireless Sensor Platform. Is Based on ARM Cortex-M3-based MCU. The platform is aimed at the development of ultra-low-power, low-cost wireless sensor nodes featuring a Java runtime environment.

http://www.virtualsense.it

Projects	**VirtualSense Wireless Sensor Node**

2013-2014

VirtualSense is an open-hardware open-source project aimed at the development of ultra-low-power, low-cost wireless sensor nodes featuring a Java runtime environment.

http://www.virtualsense.it

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