PERSONAL INFORMATION

Cristiano Aguzzi

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🐙 https://github.com/relu91

Sex Male | Date of birth 14/11/1991 | Nationality Italian

JOB APPLIED FOR
POSITION
PREFERRED JOB
STUDIES APPLIED FOR
PERSONAL STATEMENT

Research fellowship: Ontologia per la Governance dei Dati Urbani Energetici

WORK EXPERIENCE

2020 - Now

Invited Expert
World Wide Web Consortium – Web of Things Working Group

Editor of the W3C note of Web of Things Scripting API. Active member in the standardization of other architectural elements like:
- Thing Description
- Discovery
- Security

Standardization

2020

Co-Teacher
Course of "Things that Compute and Interact" at Bologna Business School

Education

April 2017 – 2020

Consulting
Advanced Research Center on Electronic system "Ercole De Castro" (ARCES)

- Active software designer in H2020 SWAMP project (http://swamp-project.org/)
  - Developed the data model of the platform using as a common IoT device model the Semantic Sensor Network Ontology
  - Member of the Technical Task Force
  - Android developer for SWAMP apps
- Software engineer for a platform based on OSGi technology

Research

2015 – June 2017

Microsoft Student Partner
Microsoft Italy

- Speaker for events about Microsoft Cloud/Mobile solutions (Azure, UWP, Cortana APIs)
- Organizer of local tech events

Advertising/ICT more about student partener program can be found here:
https://studentpartners.microsoft.com/en-us

March 2014 – September 2014	**Software developer**
	JMonkeyEngine org

Took part in Google Summer of Code where I proposed an extension of a Java based editor that I made for JMonkeyEngine (https://jmonkeyengine.org/)

▪ Developed a WYSIWYG interface for a game GUI library called Nifty-GUI and integrate it with the Netbeans IDE.

Opensource organization

EDUCATION AND TRAINING

November 2017 - Now	**PhD course on Structural and Environmental Health Monitoring and Management**
	University of Bologna (Italy)

▪ IoT technologies for Monitoring
▪ Software architectures
▪ Semantic technologies
▪ IoT protocols
▪ Ontology design

September 2015 - 2017	**Master of Computer Engineering (110/110 cum laude)**
	University of Bologna (Italy)

Thesis: Dependable solutions for an IoT semantic broker based on OSGi

▪ Modern computer Architectures
▪ Software systems engineering
▪ Artificial Intelligence
▪ Operations research
▪ Data Mining
▪ Embedded programming
▪ Languages and computational models
▪ Intelligent Systems

September 2015 - 2017	**Bachelor of Computer Engineering (100/110)**
	University of Bologna (Italy)

Thesis: Backend solutions based on Google App Engine for Android application in the healthcare domain

▪ Computer Architectures
▪ Software engineering
▪ Programming 1-2
▪ Engineering subjects
▪ Operating systems
▪ Networks
▪ Web technologies

PERSONAL SKILLS

Mother tongue(s)	Italian

Other language(s)	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C1	C1	B2	B2	B2
	B2++				

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

Job-related skills	Coding languages (experience descending order): Java, JavaScript (NodeJs), TypeScript, Go, C#, Python, C++, C
	Experience on network protocols: HTTP, MQTT, TCP, LoRa
	Embedded experience: STM32 microcontroller family, FPGA Xlinix
	DevOps: GIT, Travis-CI, Building Tools (Maven, Gradle, NPM) Docker, Bash, SSH, Jenkins, GitHub actions

Other skills   Outside from my work as a developer I like to study and create simple content about:
- Simple vector base digital drawing (Inkscape)
- UI design
- Web design

Driving licence   A, B

ADDITIONAL INFORMATION

Publications

- Aguzzi, Cristiano; Gigli, Lorenzo; Sciullo, Luca; Trotta, Angelo; Di Felice, Marco,*From Cloud to Edge: Seamless Software Migration at the Era of the Web of Things*, IEEE Access,8, ,228118-228135,2020, IEEE

- Zonzini, Federica; Aguzzi, Cristiano; Gigli, Lorenzo; Sciullo, Luca; Testoni, Nicola; De Marchi, Luca; Di Felice, Marco; Cinotti, Tullio Salmon; Mennuti, Canio; Marzani, Alessandro, *Structural Health Monitoring and Prognostic of Industrial Plants and Civil Structures: A Sensor to Cloud Architecture*, IEEE Instrumentation & Measurement Magazine,23,9,21-27,2020,IEEE

- Sindaco, Simone; Nanni, Stefania; Aguzzi, Cristiano; Roffia, Luca; Cinotti, Tullio Salmon, *Enabling Context Aware Tuning of Low Power Sensors for Smart Agriculture*, 2020 IEEE International Workshop on Metrology for Agriculture and Forestry (MetroAgriFor) 114-118, 2020, IEEE

- Kleinschmidt, João H; Kamienski, Carlos; Prati, Ronaldo C; Kolehmainen, Kari; Aguzzi, Cristiano; *End-to-End Security in the IoT Computing Continuum: Perspectives in the SWAMP Project*, 2019 9th Latin-American Symposium on Dependable Computing (LADC) 1-2, 2019, IEEE

- Brunelli, Davide; Cinotti, Tullio Salmon; Woehrl, Hugo; Aguzzi, Cristiano; Montori, Federico; Benini, Luca, *An interoperable tool-chain for energy monitoring applications,2019 AEIT International Annual Conference (AEIT)* 1-6, 2019, IEEE

- Sciullo, Luca; Aguzzi, Cristiano; Di Felice, Marco; Salmon Cinotti, Tulio, *WoT Store: Enabling Things and Applications Discovery for the W3C Web of Things.* In 2019 16th IEEE Annual Consumer Communications & Networking Conference (CCNC)

- D'Elia, Alfredo; Azzoni, Paolo; Viola, Fabio; Aguzzi, Cristiano; Roffia, Luca; Salmon Cinotti*, Tullio, The OSGI SIB: A Resilient Semantic Solution for the Internet of Things*, in: Semantic Web Science and Real-World Applications, Hershey, IGI Global, 2019, pp. 48 - 74 [Book chapter]

- Testoni, Nicola; Aguzzi, Cristiano; Arditi, Valentina; Zonzini, Federica; De Marchi, Luca; Marzani, Alessandro; Cinotti, Tullio Salmon, *A Sensor Network with Embedded Data Processing and Data-to-Cloud Capabilities for Vibration-Based Real-Time SHM*, JOURNAL OF SENSORS, 2018, 2018, pp. 1 - 12

- Roffia, Luca; Azzoni, Paolo; Aguzzi, Cristiano; Viola, Fabio; Antoniazzi, Francesco; Cinotti, Tullio Salmon, *Dynamic linked data: A SPARQL event processing architecture*, FUTURE INTERNET,2018, 10, pp. 1 - 33

- Viola, Fabio; Roffia, Luca; Antoniazzi, Francesco; D'Elia, Alfredo; Aguzzi, Cristiano; Salmon Cinotti, Tullio, *Interactive 3D Exploration of RDF Graphs through Semantic Planes*, FUTURE INTERNET, 2018, 10, pp. 1 - 30

- Aguzzi, Cristiano; Antoniazzi, Francesco; Azzoni, Paolo; Bononi, Luciano; Brasini, Francesco; Canegallo, Roberto; D'Elia, Alfredo; De Lisa, Angelo; Felice, Marco Di; Franchi, Eleonora; Perilli, Luca; Roffia, Luca; Sciullo, Luca; Siagri, Roberto; Verardi, Martina; Cinotti, Tullio Salmon, *From Heterogeneous Sensor Networks to Integrated Software Services: Design and Implementation of a Semantic Architecture for the Internet of Things at ARCES @UNIBO*, in: 2018 23rd Conference of Open Innovations Association (FRUCT), IEEE, 2018, pp. 10 - 18 (FRUCT'23, Bologna, November 13 - 16, 2018) [Conference proceedings]

- Zonzini, Federica; Maria Malatesta, Michelangelo; Aguzzi, Cristiano; Testoni, Nicola; Verardi, Martina; Scarponi, Valentina*, A sensor network target on a novel identification of cracks*, in: FRUCT Oy, Finland, ISSN 2305-7254, ISBN 978-952-68653-6-2, 602, 2018(atti di: FRUCT 23rd, Bologna, 14/11/2018-16/11/2018) [Conference proceedings - Poster]

- Aguzzi, Cristiano; Roffia, Luca; SPARQL *Update Processing: Extracting Inserted and Deleted Quads*, in: FRUCT'23 Proceedings of the 23rd Conference of Open Innovations Association FRUCT, FRUCT Oy, 2018, pp. 577 - 581 (Conference of Open Innovation Association, FRUCT, Bologna, November 13 - 16, 2018) [Conference proceedings - Poster]

- D'Elia, Alfredo; Aguzzi, Cristiano; Viola, Fabio; Antoniazzi, Francesco; Salmon Cinotti, Tullio, *Implementation and evaluation of the last will primitive in a semantic information broker for IoT applications.* In 2017 IEEE 3rd International Forum on Research and Technologies for Society and Industry Leveraging a better tomorrow (RTSI). IEEE.

ANNEXES