

Fabio Battaglia

SOFTWARE ENGINEER ·

Born in Italy, 22-Sep-1990

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Summary

Software Engineer with experience on high availability systems for Biometric Security and Travel Industry. I currently work as a Lead Software Engineer for Remark AI, a biometric system application provider, in London. I'm result oriented, I have good interpersonal and organizational skills, I'm proactive and capable of working effectively with no supervision. I regularly contribute over the stack exchange community and on Github.

Work Experience

Remark AI

London, United Kingdom

LEAD SOFTWARE ENGINEER

Sep. 2020 - present

- Design and development of a system for thermal scanning, mask wearing recognition and face recognition using thermal or basic network cameras
- Development of Microservices using Python, C++, MongoDB, MySQL, GraphQL, Kafka, Traefik, Docker, Gitlab CI/CD Pipelines deploying in AWS or on-premise installations.
- Implemented RTSP re-streaming server using Gstreamer to stream local files to RTSP

Amadeus

London, United Kingdom

SOFTWARE ENGINEER

Sep. 2017 - Sep. 2020

- Development of server applications using C++ 11;
- Coordination for a proof of concept to use Drools management system to develop a new application, using Java, Openshift, MongoDB;
- Mentoring of junior members and interns, giving supervision and project planning for dedicated projects

XiD Technologies

Singapore

SOFTWARE ENGINEER

Feb. 2015 - Aug. 2017

- Design and Development of applications connecting 3rd party devices performing Face and Fingerprint recognition to XiD FaaS system, integrating Hanvon, ZK, Suprema with custom Business requirements;
- Integrated Fingerprint and RFID Security System and CCTV for Changi Airport Terminal 5 construction, providing real-time screen alerts, anti-passback, WP expiration functionalities;
- Algorithm design using MATLAB for testing and C/C++ for development. Main techniques used are HAAR detection, ASM and histogram-based scoring;
- Development of Embedded Software and Overview of Hardware Architecture for XiD Revo Face 1.0 and Design of a fully in-house made 1.5 version using ARM 9 based architecture, controlling LCD screen, EM, Mifare RFID readers, Custom illumination, Custom Camera mount;
- Moved to an architecture using purely off-the-shelf components using 3rd party RTSP network cameras, illumination and actuation. I designed and developed an orchestrator collecting the datastream to our Face Recognition algorithm, managing all devices and connecting to our customer database; the system was developed using C#, using C# bindings for C++ libraries;
- Design and Development of an Android based application using a custom-made device, to capture attendance and perform verification of employees using Fingerprint and RFID card, using Android Studio, Java, MySQL.

ENEA

Rome, Italy

CONTROL SYSTEMS ENGINEER INTERNSHIP

Jun. 2014 - Oct. 2014

- In the context of research for Nuclear fusion technologies, the project's goal was to identify and characterize the behaviour of a Tokamak liquid lithium limiter, using an infrared thermal camera. Using MATLAB and C++ a real-time tool was built to monitor the heat distribution on the liquid limiter. After post-processing, a mathematical model of the heat distribution on the limiter was defined;

High School Concetto Marchesi

Catania, Italy

ROBOTICS TEACHER

Mar. 2014 - Jun. 2014

- Teaching as a Robotics Expert to a class of 20 High School students for an afternoon class, project financed by EU PON;
- Theory lessons covering basic concepts of Robotics, Electronics, Programming, Cinematics, Control systems;
- Hands-on sessions building an auto-orientating PTZ camera using Arduino, Servomotors, light sensors and a webcam;
- Building a mobile 2 wheels robot self oriented using light sensors for obstacle avoidance;

Education

University Of Catania

Catania, Italy

MASTER'S DEGREE IN AUTOMATION ENGINEERING AND CONTROL OF COMPLEX SYSTEMS

Apr. 2012 - Oct. 2014

- Studied Control Systems, Bioengineering, Image Processing, Industrial Processes and automation, Sensors technologies and data acquisition, Robotics basics and Behavior analysis;
- Developed projects for humanoid robots using image processing, Autonomous driving for mobile robots using infrared sensors, PLC simulation of parking lot, Inertial sensors integration for walking calculations, CNN neural networks development using STM32 dev. boards;
- Thesis: "Frascati Tokamak Upgrade: New Trends In Model Identification Of Specific Thermal Phenomena". Supervisors: Prof. Luigi Fortuna, Dott. Giuseppe Mazzitelli, Ing. Arturo Buscarino;
- Final Mark: 110/110 cum laude with special mention;

University Of Catania

Catania, Italy

BACHELOR'S DEGREE IN COMPUTER ENGINEERING

Oct. 2008 - Mar. 2012

- Studied Mathematics, physics, electronics, networking, software engineering, Operative Systems, C/C++/Java and Assembly languages, Databases, Control Systems
- Thesis: 'NetFPGA Architecture and Hardware Description' Advisors: Prof. Giovanni Schembra, Dott. Diego Reforgiato;

Skills

Languages Italian: mother tongue. French: full professional proficiency. English: full professional proficiency

IT Skills Proficient in Microsoft Office Applications, GenDoc, Sysper

Legal Applications EurLex, LexisLibrary, DeJure, Lex24

Publications

- Research project organized by Roma Tre University (Prof. G. Rossi, Mario P. Chiti, G. Corso, Dian Schefold) in collaboration with the Italian Senate: "L'Unione Europea possibile e necessaria: l'Europa a cerchi concentrici"
- The determination of the object of the avallment contract (avvalimento) in the public tender.

References

Giovanni Pitruzzella Advocate General - Court of Justice of the European Union

Massimo Merola Managing Partner - BonelliErede Law Firm, Brussels office; Professor - College of Europe in Bruges, Belgium

Bernard Mongin Legal Advisor - European Commission's Legal Service; Ancien référendaire - Court of Justice of the European Union