

Fabio Cionini

Tech Lead, CTO , Senior Software Developer

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Highlights

I have 15+ years of experience in software design and development. My skills cover a broad range of programming languages, platforms and frameworks.

I am very confident in designing complex systems and developing software for web applications, backends, CMSs, APIs, mobile.

I am proficient in all project phases (brainstorming, wireframing, choice of technologies, system architecture and data model design, UX strategies, development, testing, deploy), team leading and project ownership/management.

In 2007 I co-founded the award-winning Italian interaction design studio TODO, where I worked as CTO, Head of R&D and Senior Software Designer and Developer.

I developed a strong problem-solving attitude, together with the ability to deploy medium and large projects with tight deadlines and budget constraints negotiating with clients, focusing on adopting the best software solutions in terms of stability, reusability and maintainability, adhering to design patterns and best practices. Other than being personally involved in development, I managed development teams which included junior developers and UX/UI/content designers.

In 2015 I joined Engage Works Ltd, London, as Head of Development. I further developed my Technical Leader attitude by having a key role in big projects managing international teams.

At the end of 2016 I became a freelance Senior Developer / Tech Lead / CTO, working for several international clients in UK, Sweden and Italy as a consultant.

In 2019 and 2020 I have been employed at Changan Europa Designing Center in Rivoli (TO) as Tech Lead and Head of Software Prototyping. My tasks here were to manage the development team to design and develop software and hardware solutions for UX, UI, HMI research and development.

I love challenging myself and being involved in new projects and explore uncharted territories, open to learn new languages and environments. I think my mindset and attitude toward making things work and always find the best solutions are among my defining characteristics.

Main skills and competences

- ▶ As Tech Lead , CTO, Head of R&D, Head of Development
 - ▶ Technology research, effort estimates, resource assignment and management
 - ▶ Agile development (Scrum, Kanban)
 - ▶ Team building, recruiting of freelances, interviewing, mentoring
 - ▶ Full responsibility for development of key project under pressing deadlines and tight budgets
 - ▶ Design of system architectures and specifications,
 - ▶ Project documentation, reports to clients and directors

- ▶ As Senior Developer
 - ▶ Full-stack web development: Angular 2 to 10, Ionic 3 to 5, Cordova, Vue.js, Node.js, PHP, Laravel, REST, HTML5, CSS3, Javascript, TypeScript, Python, AJAX, Web Sockets, networking.
 - ▶ Databases: MySQL, MongoDB / Mongoose, SQLite, Redis.
 - ▶ Continuous delivery systems (Jenkins).
 - ▶ Server configuration and administration: Linux (Ubuntu/Debian).
 - ▶ Mobile application development: iOS (Objective-C, Swift, Cocoa Touch frameworks); cross-platform development (Ionic, Cordova).
 - ▶ SOLID principles of programming, software design patterns, Agile development.
 - ▶ Real-time, generative graphics and interactive environments: OpenFrameworks (C++), Processing (Java); computer vision, object tracking (OpenCV, Kinect); Arduino (C++).
 - ▶ Serial protocols and embedded devices communication (RS-232, OBD2, CAN).
 - ▶ Desktop application development: Mac Os X (Objective-C/Cocoa).
 - ▶ UX/UI design and web/print graphics design (Sketch, Photoshop, Illustrator).

Employment history and main projects

2021

Freelance developer for full-stack web projects (Angular, Node.js, PHP/Laravel, Python, MySQL).

Co-founder, Lead Software Architect and Dev Team Manager in SeetaLabs, an AI startup that provides Artificial Intelligence services to power plant industries and research facilities such as CERN.

<https://seetalabs.com>

2019 - 2020

Full-time employee at Changan Europa Designing Center, Rivoli (TO).

In Changan I have been working on several software prototypes involving web applications (Angular, Ionic, Node.js, Three.js, GSAP), interfacing with automotive real-time systems (OBD-2 and CAN bus), mobile and native applications (C++, Ionic/Cordova) together with participating on UX design discussions, design decisions and project specifications.

I have also developed a real-time socket-based state management server system for interconnecting and orchestrating different software platforms and embedded hardware devices in cockpit interactive prototypes.

I have been working in an Agile team with UX and UI designers, engineers, designers and marketing specialists.

2016 - 2018

CTO at Ledworks srl, creators of Twinkly smart decorations (twinkly.com), managing development teams, directing research and development, dealing with product owner requests, working on the full software stack: native mobile applications, IoT services, server applications and system architecture.

Freelance contractor for international clients as a Senior Software Architect, Tech Lead and Developer:

Paratissima Art Gallery

Online art marketplace for the 4th Italian art fair in terms of visitors. Full stack development (Angular 5 frontend + Feathers.js/Node backend) and ongoing design and implementation of a blockchain-based platform for safe and trusted purchase and resell of artworks (or shares of them).

<https://artgallery.paratissima.it>

PassBot

The first Messenger chat bot for restaurants, pubs and beach resorts in Italy. I worked as Chief Architect and Senior Developer, managing the development team and designing features (data structure, user flow, web-based ordering, conversational UI, Natural Language Processing).

<http://www.orderconcept.com>

Enterspace Pod Control GUI

Enterspace AB is a VR experience startup based in Stockholm. For them I delivered a visual web-based control system (Node.js backend + Vue.js frontend) to manage VR experience areas (control and set up experiences).

<https://www.enterspacevr.com>

MyVirtuoso Home App

MyVirtuoso is a IoT home automation system that is compatible with smart home appliances (alarms, smart power plugs, lighting, etc.) I developed the hybrid mobile application that controls the whole system

<http://www.myvirtuosohome.com/en/>

2015 - 2016

In 2015 I joined Engage Works Ltd., based in London, to work as Head of Development . My tasks are Technical Lead on key projects, lead the development department as a whole, consult on new work, develop the skills of internal staff and vet freelance staff.

I have worked on web-based (back-end and front-end) and native interactive applications (mostly Windows WPF touch-based), designing system architectures and API specifications, leading internal developers, designers and freelancers, having full responsibility for software release on schedule, choosing technologies, dealing with clients requests.

Engage Works provides interactive digital solutions to clients such as EY, KPMG, Accenture, Dubai Prime Minister Office, Sky, Jaguar, SAP.

Working at Engage significantly improved my leadership skills, enabling me to drive international teams of developers and designers on complex projects and tight deadlines.

Among the projects which I took part as Head of Development and Tech Lead are:

Edge of Government exhibition project for the Dubai Prime Minister Office

I led the software development team for all interactive exhibit installations: there were several custom software projects (games, interactive presentations) and a responsive website.

<https://edge.worldgovernmentsummit.org/2016/>

Sky Academy (Italy and UK)

Sky Academy is an educational TV studio where students can learn how to make TV (write, shoot, edit and publish news). All the studio software to record, edit and deliver the shows is developed by Engage Works .

I was responsible for deployment of two studios (Milan, Italy and Osterley, UK) and software development for some new system components (C++ and C#).

<http://www.skyacademy.it/sky-academy-studios/>

2007 - 2015

In 2007 I founded TODO together with three partners, and worked there as CTO, head of R&D, software developer and designer, creative technologist. TODO main activities are on interaction design projects for exhibitions, big events, museums and mobile software development.

Working there, I had full responsibility for the software development of the projects I took part in, choosing the right technologies, coordinating teams of developers and designers, developing key software parts of most

projects (database structures, web services, communication between devices, server-side applications), designing APIs, software and hardware specifications, dealing with clients and contractors.

The current TODO website is <http://todo.to.it>. A selection of previous projects updated to 2012 can be seen at the old website <http://tiodio.todo.to.it>; more photographic material on <https://www.flickr.com/photos/todotoit/sets/> and videos on <https://vimeo.com/todotoit/videos>.

Among the projects which I took part as Creative Technologist, Software Designer, Developer and/or Team Manager, are:

ENEL Pavilion for Expo 2015

We designed and developed several areas of ENEL (the main electric company in Italy) pavilion for Expo 2015 in Milan providing contents, graphic design, software and hardware electronics development.

I was the main developer for the "Bosco di Luce" installation, an audio/video system that surrounds the whole pavilion featuring 632 fully software controlled LED-lit poles (over 2500 DMX channels) synchronized with a 32 speakers audio system to create an immersive experience. I developed the main controller software using C++/OpenFrameworks and Java/Processing.

Museo Egizio 2015 Campaign

For the new, restored Turin Egyptian Museum (the second largest Egyptian museum in the world) we designed a campaign based on interactive installations such as a 3.5mt high hourglass which holds enough sand for the 6 months countdown to the opening of the new Museum, to a robotic arm uncovering Egyptian relics controlled by visitors blowing on a microphone. This installation has been then connected to a website that will let users from all over the world control the robot while seeing the live video streaming of the robot operations. I designed and developed the backend server (on Sails.js/Node/Socket.IO) which manages user registration, queueing and sending commands to the robot software and the streaming server.

http://www.compagnia.egizio2015.it/la_spedizione_di_egizio_2015/?lang=en#/

<http://youtu.be/Uk0PaShqxJA?list=PLuclrnaxFGWSymIndkaXEv63EowHZW0r>

Arduino backend software

TODO has been working with Arduino since the beginning, designing the logo, the visual identity and all product packaging. We also developed part of the frontend and backend websites of Arduino: I designed and developed (using the Laravel PHP5 MVC framework) part of a unified backend RESTful API service for the Arduino websites and also, using the same tools, a complete backend for an Arduino internal web application to manage "Call for Makers" entries, selection and production for the Maker Faire Rome event in 2014, while also coordinating the frontend developers.

<http://arduino.cc>

<http://blog.arduino.cc/2014/05/13/arduino-tre-developer-edition/>

<https://www.flickr.com/photos/todotoit/sets/72157628237067487/>

Doha Film Institute mobile application

iOS and Android native mobile application to promote the activity of the Qatari film institute and the Doha Tribeca Film Festival, the most important Middle-East film festival: films informations, online ticketing, magazine contents, social activities.

I was responsible for all the design and development of the REST-based back-end API architecture, CMS and database structure, also managing the contractors who developed the mobile applications.

<http://www.dohafilminstitute.com/institute/mobile>

Indesit / HotPoint Innovation Room

Salone del Mobile, Milan, 2012. A room full of futuristic appliance prototypes with interactive displays and custom electronics and sensors, all controlled by iPads and iPhones. I developed the LED-backed custom displays control software and the system architecture and specifications for all the computers, also managing the contractors who worked on the mobile apps to control the electronic devices.

<https://www.flickr.com/photos/todotoit/sets/72157629881534409/>

Chinagram

This iPad/iPhone application tells the story of Chinese writing in an interactive and immersive way.

The app, based on a book published by Vallardi Editore, was designed and developed internally.

I was the main Objective-C developer, also contributing UI/UX decisions and managing junior developers.

Chinagram has been featured on an Apple iPad TV ad in USA and has been App of the Week on several countries.

<http://chinagram.info>

2004 - 2007

Full-time contractor for Atos Origin as a web developer for Fiat Auto. I was part of a 40+ development team, working mainly with PHP and Oracle databases on a mission-critical web application used by Fiat retailers all over Europe.

Employed at Lonely Planet Italy as senior web developer and web designer: I was responsible for corporate web site redesign and development, internal web applications, database architecture and optimizations, coordination of junior developers.

Education

I have a Science high school graduation (Liceo Scientifico).

In 1994/2000 I attended degree courses in Communication Studies at the Università degli Studi di Torino, taking all exams except for the final degree dissertation.

Languages

Aside from Italian, my native language, I have full comprehension of written and spoken English, especially technical English.

While working in London as part of an English team, I improved my English skills considerably both in speech and writing (project specifications, budgets, technical documents).

I also have basic understanding of written and spoken French.