

Andrea De Camilli

Software engineer | IoT systems integrator | Fullstack developer

Genova, Italy

Phone: (+39) 392 4398344

Email: andrea.nunzio.decamilli@gmail.com

LinkedIn: <https://www.linkedin.com/in/andrea-de-camilli/>

Website: <https://deca.me>



#Professional Summary

Full-stack engineer and technical consultant with 15+ years of experience building web platforms, telemetry dashboards, and hardware-integrated software systems. Specialized in practical IoT and R&D workflows: sensor acquisition, real-time data streaming, edge-to-cloud pipelines, and operational visualization. Effective in small multidisciplinary teams that need prototype-to-pilot delivery across software, hardware, and field constraints.

#Selected Strengths

- Translate ambiguous R&D requirements into working prototypes and pilot-ready systems.
- Build telemetry workflows across sensors, gateways, backend services, and dashboards.
- Integrate software with field hardware constraints, unstable connectivity, and operational workflows.
- Create practical admin, visualization, and monitoring tools for technical and non-technical users.

#I work/worked with

IoT / Telemetry	Backend / Data	Frontend / Dashboards	Visualization	Systems / Delivery
Edge to cloud dataflow	Laravel / Node.js	Alpine.js	WebGL	Linux / VPS
Sensor acquisition	REST APIs	Tailwind CSS	Point clouds	Git / SSH
MQTT / OPC UA	MySQL / PostgreSQL	Chart.js	WebGIS	Reverse proxy setup
RTSP / RTMP / FFmpeg	Background services	Admin workflows	Map-based exploration	Raspberry Pi / Arduino
		Real-time monitoring	Photogrammetry pipelines	Field prototyping

#Professional Experience

Independent Technical Consultant | Full-Stack, IoT, and Systems Integration

Genova, Italy | 2017 - Present

- Deliver custom software and hardware-integrated solutions for clients across marine monitoring, IoT, web platforms, geospatial tools, and applied R&D.
- Build full-stack applications from initial concept through implementation, integration, and handoff, typically working across both product and technical delivery responsibilities.

Selected engagements

Mywai / Neptune

Tech Developer and Systems Integrator | 2023 - Present

- Contributed to the integration of a custom camera system and CTD instrumentation on an underwater ROV used to monitor ocean conditions and environmental parameters.
- Structured an edge-to-cloud workflow across gateway services, standardized OPC UA telemetry nodes, video streaming endpoints, and cloud-facing dashboards.
- Developed Node.js microservices and OPC UA integrations that centralized real-time telemetry from field devices and reduced one-off debugging through standardized interfaces.
- Integrated RTSP video delivery using FFmpeg-based streaming workflows, giving remote stakeholders access to live field video without direct access to the edge network.
- Built a cross-platform Electron application to control camera parameters and display live video feeds.
- Developed a real-time monitoring dashboard using Laravel, Backpack, MQTT, and Chart.js, improving visibility into live operations and reducing manual checks during test sessions.

- Improved reliability under intermittent connectivity by introducing local buffering and session backup workflows to preserve data continuity during field operations.
- Built a proof of concept for tamper-evident dataset provenance using IPFS and IOTA testnet, enabling timestamped verification of scientific datasets and media bundles.

OceanCitizen

Full-Stack Developer | 2023 - Present

- Contributed to the monitoring work package in collaboration with Ubica.
- Built a browser-based point-cloud visualization platform using WebGL for interactive exploration of marine environmental datasets.
- Implemented in-browser measurement and annotation tools, including distance and height-profile analysis.
- Delivered backend administration and user-facing workflows for dataset management, user projects, and authentication.

Ocean Pulse

Technical Contributor | 2024 - Present

- Contributing to the development of an open-source, low-cost CTD platform with integrated PAM fluorometer for oceanographic research.
- Supported hardware integration for conductivity, temperature, oxygen, and fluorescence sensors in a modular device architecture.
- Built a web dashboard for real-time monitoring of streamed field data, helping replace fragmented manual inspection with a single monitoring workflow.
- Structured an MQTT-based telemetry pipeline with clearer message IDs, operational controls, and error visibility for faster testing, easier troubleshooting, and extensibility across additional sensor payloads.

Sirens

Backend and Data Platform Contributor | 2024 - 2026

- Built a secure data-acquisition and media-ingestion platform for sensor workflows and photogrammetry pipelines.
- Designed session-based data modeling and automated upload/transfer flows, reducing repetitive manual handling of large datasets and image batches.
- Improved reliability through authenticated capture, structured storage, and repeatable sync logic, lowering the risk of missing or duplicated files during operational use.

Protech2save / 4Dive

Full-Stack Web Developer | 2017 - Present

- Developed WebGIS platforms for Ubica and Greenbubbles using PHP, Laravel, MySQL, jQuery, and map APIs including Google Maps, Mapbox, and Leaflet.
- Implemented admin panels, authentication flows, two-factor access, large-file upload workflows, raster-layer visualization, and rich geospatial data browsing.

Alleco

Electronics Prototyping Support | Project-based

- Developed an underwater camera prototype power-supply and control system for 3D reef photogrammetry use cases.
- Worked on protection logic, voltage-control circuitry, and alarm handling.

Lottomatica

Frontend Developer | Project-based

- Worked on the frontend implementation of browser-based gaming interfaces for a major lottery and gaming operator.

MyW.AI

Tech Developer | Genova / Remote | 2018 - 2023

- Worked in a multidisciplinary startup environment focused on edge computing and predictive maintenance for Industry 4.0 use cases.
- Contributed across web application development, speech-recognition-related integration, DLT experimentation, hardware prototyping, 3D modeling, and assembly.

Selected projects

Assist-IoT / Poseidon

- Contributed to a high-precision GPS tracking solution based on u-blox ZED-F9P RTK modules.
- Supported configuration of base-station and rover setups using RTK correction flows over LoRaSerial.
- Assisted with Python-based data-acquisition scripts on Raspberry Pi for GPS logging and testing.

Scooner

- Helped develop a handheld device for evaluating Bluetooth Angle-of-Arrival tracking.
- Managed hardware integration, component selection, and 3D-printed enclosure optimization.
- Customized and troubleshooted touchscreen and LCD software interfaces to improve device usability.

LuminousBees

Web Developer and Maker | Savona / Remote | 2017 - 2018

- Collaborated with a startup building aerial media shows using swarms of micro-robots.
- Built a web application to collect and visualize drone-swarm data.
- Prototyped custom electronics solutions, including a portable fast-charging system and experimental charging hardware.

Encanto Trading Platform

Frontend Web Developer | Genova / Remote | 2018

- Worked as a freelance frontend developer on a traditional and crypto-oriented private trading platform.
- Integrated market data from multiple APIs and implemented customizable UI panels for data and chart display.

Day One Network LTD

Full-Stack Web Developer | Genova | 2015 - 2017

- Coordinated website concept and design work with internal and external collaborators.
- Implemented a new UI and templating system using Bootstrap and JavaScript.
- Improved responsiveness across multiple devices and updated legacy PHP code for signup and email workflows.

Dartway Interactive

Full-Stack Web Developer | Genova | 2008 - 2015

- Built websites and web applications for multiple clients across frontend and backend layers.
- Developed custom WordPress plugins and managed several concurrent client projects.
- Implemented signup interfaces and business workflows using JavaScript, HTML, CSS, Bootstrap, and PHP.

BSC Consulting S.p.A.

Junior Web Developer | Genova | 2006 - 2008

- Developed a modular PHP/MySQL CMS tailored to client requirements.

Acme

Electronic Engineer | Genova | 2004 - 2005

- Inspected and repaired industrial automation electronic boards.
- Worked with SMT-related processes, PCB assembly equipment, test workflows, and failure analysis.

Satel

Electronic Technician | Savona | 2001

- Designed, prototyped, installed, and repaired electronic equipment across audio, video, RF, and custom vehicle systems.

#Selected Additional Background

Community

Local Crypto Meetup Organizer | 2018

- Hosted a recurring meetup to teach people about cryptocurrencies and help grow a local community of enthusiasts.

Entrepreneurial Project

Crazy Hardware SRL | 2012 - 2014

- Launched an online store focused on PC hardware for enthusiasts and modders.
- Built an initial custom e-commerce platform, then migrated operations to WooCommerce as the business expanded.
- Tested customer-acquisition and product-feedback mechanisms to improve conversion and purchasing confidence.

#Education and Training

Istituto Tecnico G. Ferraris

Electronic and Telecommunications Engineering
Savona | 1997 - 2001

Elea S.p.A.

Web Expert in Open Source Environment
Genova | 2005 - 2006

Finsa IRE

Basic and Advanced PHP/MySQL Development
Genova | 2008 - 2009

Tecno Italia Safety and Survival Training SRL

Basic Offshore Safety and Emergency Training

Roma | 2002

SUP Garda Academy

Certified SUP Instructor accredited by ACSI/CONI

Manerba | 2021

#Additional Information

- Background spans software engineering, hardware prototyping, field instrumentation, and applied technical problem solving.
- Long-standing interest in decentralized systems, embedded tools, and practical maker workflows.
- Active in outdoor sports, photography, and personal electronics projects.

#Notes for Tailoring

- Add metrics where available: users, devices, deployments, latency, uptime, cost savings, research output, or delivery timelines.
- If the target role is mainly software-focused, reduce blockchain and non-core hobby content further.
- If the target role involves marine tech, IoT, field systems, or prototyping, keep the interdisciplinary angle prominent.