DAVIDE GASTALDI

PERSONAL INFORMATIONS

Name: DAVIDE GASTALDI
Date of Birth: 21/4/75
Sex: Male
Nationality: Italian

WORK EXPERIENCE

2011 - today: Solution Engineer / Technical Leader in 5T S.r.l. company (www.5t.to.it).

- Senior Technical Leader in **Piemonte Region Electronic Ticketing System "BIP"** (Biglietto Integrato Piemonte): a multi-years program involving dozens companies and agencies, with potential impact on hundreds thousands citizens habits. BIP architecture bases on secure elements (Calypso NFC smartcards) and protocols, and involves transversal competencies; from hardware peripheral and asset management, algorithms, security, down to internal smart-card file system and applications.

- Deployment of **experimental IoT wireless network** based on LoRaWAN technology, also adhering of **thethingsnetwork.org** exploiting experimental integration with IFTTT, Telegram, InFlux DB, opensensors platform etc.

- Contributor to tender for **Qatar ASHGHAL RAMC** (Road Assets Management Centre) architecture, especially overall design, integration interfaces, map modules.

- Technical Leader for 5T company open-data strategic developments program (part of local "Torino as a platform" and national "Team per l'Italia Digitale" intiatives).

- (2015-2016) Customer Solution Engineer for **ATM Messina connected vehicle monitoring** system: overall solution engineering, coordination of development an IT teams, deploying and testing. Cloud-hosted solution based on OpenDMTP protocol.

- (2014-2015) Technical Leader and Solution Engineer for **Expo Milano 2015 mobility and parking platform**; fully-integrated solution including real-time monitoring of connected bus fleets, on-board and in-stop connected information systems, parking automation, street-side LED displays, e-ticketing, front-end, back-office and ecommerce web portals, mobile.

- (2013) Solution engineer and Project manager for **Province of Torino Integrated Data Platform**.

- (2011) Member of the core-team developing "**General Transit Real Time Feed Specification**" (also known as Google Live Transit).

- (various) Technical Leader and contributor in several European projects, including "CORE" (dangerous goods real-time cross-borders location and data exchange); "SETA" to extract traffic data from traffic cameras: "PuMAS" for unified management of logistic vehicles and integration with urban gates.

2011 - today: Member of CEN Workgroup TC278/WG3/SG1 (www.cen.eu)

SG1 (Sub-Group 1) is a standardization team working on European on-board telematics network standard for public transport vehicles. Activity includes participation in developing and deploying next CEN documents for open on-vehicle aftermarket communication and integration (EN-13149 documents, parts 7 to 9)

2008 - 2011: 5T S.r.l – Software Engineering Team Leader / Internal Consultant

As head of a small developers team caring for overall engineering and development of software solutions:

- On-board telematics network architecture design for local and regional Public Transport fleets to integrate connected ticketing machines, video surveillance, vehicle monitoring systems, infotainment etc.
- Solution Engineer and Technical referral for Torino Public Transport Fleet Automatic Location and Monitoring System.
- Technical reference in data-oriented strategic partnerships (Seat Pagine Gialle, Navteq Discover Cities, TomTom Maps, OpenStreetMaps).

2003 - 2008: 5T cons. – Software development team-leader; IT manager; Project Manager.

Took care for several roles including IT assets procurement and management, server maintenance, network design, software design, development and deploy etc.:

- Manager and developer for the P.A.S.T.A. platform project (integrated data platform to interconnect and harmonize data partners at region-wide level).
- Promoted 5T participation in GTFS and Google Transit layer, exporting and integrating public transport data for Piemonte Regional transportation.
- Project manager and Solution Architect for the **XX Winter Olympics Game's Traffic Operation Centre (TOC)** integrated platform.
- Internal consultant for integration of wireless video-surveillance system on Torino underground trains and Torino public transport.
- Technical responsible (2005) for the 5T/Vodafone geographic gprs/umts APN to interconnect remote sensors and peripherals.
- Developer for the "Concentratore Parcheggi" system (2004), to interface connected premises in a scalable and platform-independent system. System currently in operation.
- Member of the RDS-TMC Europe Forum (up to 2007).

2001 - 2003: former Alenia Aeronautics (now Leonardo Company – BIT: LDO)

Starting as a C++ and Fortran developer; grew in responsibilities in several projects learning to move and operate in a very international environment and distributed, trans-national teams

- project manager (2002) on the Eurofighter Maintenance Simulator Trainer (MST) development sub-project;
- international task-groups leader: "Graphic Task Group" and "Integration, Testing & Quality Assurance Task Group" across MST and other projects
- developer for Eurofighter Fuel System and Fuel Dynamics desktop simulator; software analyst and developer in Harrier AV8-B Maintenance Trainer re-hosting project (in collaboration with Reflectone USA);

2001: Researcher scientist in Politecnico di Torino / IRITI CNR
(National Research Council's Institute for Research in Computer Science and Telecommunication Engineering)

Software developer for performance testing on SCADA field networks for industrial automation and remote control (CANbus/CANopen protocol) in critical industrial environments and real-time operating systems.

EDUCATION

Feb 2001	**Laurea in Ingegneria Elettronica** (5 years MSEE)
	Politecnico di Torino – II Facoltà di Ingegneria – Turin (Italy)
	Specific courses in Control Automation, Software Engineering, DBMS, Networks, Computing Systems, Semiconductors, Cryptocoding.
	Graduated with a thesis in Computer Programming, developing a network socket in C++ to share and synchronize multi-users 3D applications on high-speed networks.
1994	Diploma di maturità di Perito Informatico (CGE~A)
	ITIS G.C.Faccio Technical High School – Vercelli Italy

OTHER SKILLS/INFORMATIONS

IT

- Programming: experienced in PHP, SQL/T-SQL, Actionscript; Java. Dated: C/C++/Visual C++, Matlab (Simulink and Stateflow); experience with RTX (real-time kernel extension for Windows) and Miracl™ libraries; assembly programming;
- Some experience with AWS platform and Google tools and libraries (Google Maps Flash SDK, Fusion Table etc.);
- Databases: MySQL, MS SQL Server, various experience with Oracle, Postgres, SQLite, InfluxDB;
- Versioning: SVN, Git.
- Network architecture, protocols (TCP, UDP, http, OpenDMTP, ZMQ, MQTT, DNS-SD etc.), tools (WireShark)
- Application: Office suite (inc. Visio), UML Enterprise Architect, Altova Suite, Corel Draw suite, Macromedia Flash, Trimble Sketchup; JOSM, Qgis; HeidiDB, draw.io, opensensors, etc.;
- Some experience with ciphering algorithms (RSA, also at application level);
- Serial field buses protocols (CanBus e MIL-1553), automation systems (KNX);
- Quite wide experience with NFC and RFID protocols and applications.
- Basic (but growing) experience in embedded systems (Arduino)

More

Sports: skiing, sailing, bike. Do-it-yourself passionate. A+B driver license, boat license. Homebrewer. Compulsive reader. Openstreetmap contributor.
Experience as actor (theatre), dancer.