

PERSONAL INFORMATION

Domenico Balestrieri

 dbalestrieri69@gmail.com

POSITION

Software Engineer / System Analyst

WORK EXPERIENCE

01/10/2015–Present

Software engineer

INTECS S.p.A.

Customer: Ministero Difesa

- study of algorithms for gunshot detection using wavelet, time series data analysis and classification

Activities: prototype development of a detector**Tools:** matlab, weka**Business or sector** Research & development

06/2013–Present

Software Engineer

INTECS S.p.A.

Customer: FIAT

- Participation in development of the product DIANA (Digital Instrument for Automatic Network Analysis), a test bench to automate the validation process of network layer of the control units.

Activities: Sw development of the parser of a script c-like language (for the development of the DIANA tests) and of the system middleware.**Tools:** Win7, Eclipse, c/c++**Business or sector** Automotive

10/2012–05/2013

Software Engineer

INTECS S.p.A.

Customer: Selex E.S.

- Partitipation in ATOS GSS project, the Ground Station of P72A aircraft, for the maritime surveillance.

Activities: SW Development of Ground station console**Tools:** Win7, Netbeans, java, Luciad Lightspeed library**Business or sector** Maritime Traffic Control

03/2009–09/2012 **Software Engineer / Team Leader**

INTECS S.p.A.

Customer: Research & Development.

- R&D for Traffic Control Division (Maritime Traffic). Activities have been relative to:
 - path planning using heuristic algorithms
 - expert system for threat assessment
 - machine learning
 - parallel algorithm for path planning using CUDA
 - Operator console for traffic monitoring using GIS technologies

Activities: SW Algorithms development, software prototyping coordination and development, papers submission, conventions participation, co-relator for thesis, university contacts.

Tools: Linux, Netbeans, java, c++, GIS, Matlab

Business or sector Maritime Traffic Control

09/2009–09/2012 **Software Engineer / Team Leader**

INTECS S.p.A.

Customer: Selex E.S.

- Participation in the VTS-DAV (Vessel Traffic System - Decision Aids for Vessel traffic control), a decision support system for mission planning used by the operators of the vessel traffic control..

Activities: Requirement analysis, Architecture design, Interface definition, test definition and coordination, Software design/development and algorithms definition and prototyping, team leading , customer contacts.

Tools: linux, c/c++, Netbeans, java, UML, GIS, Planning algorithms, MIL-STD-498 documentation

Business or sector Maritime Traffic Control

01/2009–09/2009 **Software Engineer / Team Leader**

INTECS S.p.A.

Customer: Selex E.S.

- Participation in the VTS-DBQ (Vessel Traffic System - Data Binding System), a gateway of data between VTS System and external systems used for traffic control .

Activities: Requirement analysis, Architecture design, Interface definition, test definition and coordination, Software design/development, team leading , customer contacts.

Tools: linux, Netbeans, java, jms, JBoss, XML, MIL-STD-498 documentation

Business or sector Maritime Traffic Control

07/2008–12/2008 **System Analyst**

Intecs S.p.A.

Customer: Thales Alenia Space.

- Participation in SENTINEL 1 project (European Space Agency) as consultant in Thales Alenia Space for the mission ground segment analysis .

Activities: Architecture design of the Ground Segment

Tools: UML, ECSS E40B documentation

Business or sector Space

07/2007–12/2008

Software Engineer

INTECS S.p.A.

Customer: European Space Agency (ESA).

- Participation in the CUSM project (European Space Agency) for migration of EO satellite metadata from the obsolete CUS catalogue system into the newer ESA multimission master catalogue (MMMC).

Activities: Relational Schema analysis and SW development for migration of data**Tools:** Oracle, Sql, java, jdbc, XML**Business or sector** Space

01/2007–07/2007

System Analyst

INTECS S.p.A.

Customer: Alenia Spazio.

- Participation in the EODIS project (European Space Agency), the extended version of DDS system (the Dissemination Data system for ENVISAT used by ESA), particularly as analysis/development responsible of the TDDM component (the user interface to the system).

Activities: Relational Architecture design and interface definition**Tools:** UML, Office2000, Rational ROSE, ECSS E40B documentation**Business or sector** Space

10/2000–12/2006

System Analyst / Software Engineer

INTECS S.p.A.

Customer: Telespazio

- Participation in the COSMO SKYMED (Agenzia Spaziale Italiana) project, phase B (CREDO System), particularly in designing of the architecture of software modules to provide the user with a web interface to the system.
 - **Activities:** Architecture design and interface definition .
 - **Tools:** UML, Rational ROSE, PSS-05 documentation
- Participation in the COSMO SKYMED (Agenzia Spaziale Italiana) project, phase C1, particularly in designing (and interfaces definition) of the architecture of software modules and participation in the implementation of the software prototype.
 - **Activities:** Requirement Analysis, Architecture design, interface definition, Software prototyping .
 - **Tools:** linux, UML, Rational ROSE, Jbuilder, J2EE, XML, PSS-05 documentation
- Participation in the COSMO SKYMED (Agenzia Spaziale Italiana) project, phases C2 and C3, particularly as responsible of the analysis and design of the UGS-IM subsystem and interfaces definition, with a security analysis for defence and commercial application.
 - **Activities:** Requirement Analysis, Architecture design, interface definition .
 - **Tools:** UML, Rational ROSE, PSS-05 documentation
- Participation in the COSMO SKYMED project (Agenzia Spaziale Italiana), phase D, particularly as development responsible of the web interface (IM-CAM component), with the feature to be service/user-profile dependent, and to provide the access to the UGS services via interoperability protocol.
 - **Activities:** SW development of the web interface (client/server) and Team leading .
 - **Tools:** linux, UML, Office2000, Jbuilder, Oracle, J2EE, SOAP, Jboss, IBM Websphere, XML, PSS-05 documentation

Business or sector Space

- 04/2000–09/2000 **Software Engineer**
 INTECS S.p.A.
Customer: Research & development
- Participation in the SESTANTE2000 Research Project, supporting the development of an Integrated System for the computer aided fleet maintenance
- Activities:** SW prototyping
Tools: UML, WNT, Visual C++, Office2000, SOAP, TCP/IP
- Business or sector** Space
- 01/2000–03/2000 **Software Engineer**
 INTECS S.p.A.
Customer: European Space Agency (ESA)
- Participation in the DARTAGNAN project (European Space Agency), aimed to the development of an experimental environment allowing connectivity tests between two interoperable protocols (CIP 2.4, GIP-C) oriented to the information retrieval via Internet over catalogues of geo-referenced products
- Activities:** SW development
Tools: Sun/OS Solaris 2.x, CIP, GIP, TCP/IP, C++, Sun Workshop
- Business or sector** Space
- 09/1998–12/1999 **Software Engineer**
 DUEL S.p.A.
Customer: Autostrade S.p.A.
- Design and participation in implementation of a system dealing with the assembly/editing of traffic video news for Autostrade S.p.A, broadcasted by 'Canale 5' (TRAFFICO news) and 'LA7'
- Activities:** SW development of the GUI and middleware for Video streaming
Tools: WNT, Visual C++, Win MFC, Matrox DigiSuite SDK (MS Direct Show), ODBC/Oracle
- Business or sector** Multimedia / Broadcasting
- 09/1998–12/1999 **Software Engineer**
 DUEL S.p.A.
Customer: German TV.
- Design and implementation of algorithms for the recognition of rectangular shapes and extraction of edges from colour images for a Virtual Advertising project .
- Activities:** SW development
Tools: WNT, Visual C++, Matrox DigiSuite SDK (MS Direct Show)
- Business or sector** Multimedia / Broadcasting
- 01/1990–04/1993 **Military Navy Officer**
 Ministero Difesa (Marina Militare Italiana)
Customer: n.a.
- Military Navy Officer, technical responsible for the development and maintenance activities for the Information System of the Military Navy Logistic Inspectorate .
- Activities:** project coordination
Tools: Oracle6, Cobol, MVS, VM

EDUCATION AND TRAINING

- 09/1993–07/1998 **Master degree**
 Scienze dell'informazione (computer science) - vote 109/110 - Università "La Sapienza", Rome (Italy)
 Dissertation title:
"Project for an Optical Character Recognition (OCR) system for handwritten boxed digits using a new image resampling algorithm"

- 12/2014–10/2015 **Master in "scientific computing"**
 Facoltà di Matematica (Mathematics department) - Università "La Sapienza", Rome (Italy)

- 01/2000–Present **Company Training**

 - [2000] ISO 9000 (internal)
 - [2004] JAVA (internal)
 - [2004] Linux (internal)
 - [2004] ECSS E40B (internal)
 - [2004] CMMI tutorial (internal)
 - [2006] Customer management (internal)
 - [2006] Project management: (internal)
 - [2008] UML (internal)
 - [2010] OSSP (internal)
 - [2012] Multicore Processors: Architectures And Programming (external)
 - [2012] Luciad Light Speed (external)
 - [2014] C++ (internal)
 - [2014] Embedded Programming (internal)
 - [2014] QT (internal)

PERSONAL SKILLS

Mother tongue(s) Italian

Other language(s)	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	B1	B1	B1	B1	B1

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

Communication skills Good communication skills gained through my experience as consultant to customer companies for system engineering activities

Organisational / managerial skills Leadership experience of teams of 5/6 people

Job-related skills good command of quality control processes gained working for projects ISO 9000 compliant

Digital competence

Languages: C/C++, Java, Visual C++, XML/XSL/XSD, J2EE/JSP/servlet, Cobol, Pascal, Basic, Assembler

Parallel programming: Open MPI/MP, CUDA

Operating Systems: Linux, Windows, IBM MVS

Middleware: COM/DCOM, Java RMI, SOAP/UDDI

Databases: JDBC/ ODBC, Postgress, Oracle, MySQL, SQL

Application Servers: JBoss, IBM WebSphere

GIS: Postgis/QuantumGis

Configuration Management Tools: CVS,SUBVERSION

Methodologies: Model Driven Design, OOD

UMLCASE Tools: ECLIPSE, Rational Rose, NETBEANS

Standards and Legislations: ECSS E40, MIL-STD-498, PSS-05

Other: Jess, Matrox DigiSuite, Direct Show, Matlab

Driving licence B

ADDITIONAL INFORMATION

Publications

- **Title:** "Sistema per il calcolo di rotte in mare aperto in presenza di Ostacoli" - **Authors:** Balestrieri D. (intecs), Pappagallo A. (intecs), Piu I. (intecs) - **Publication:** PORTI & NAVIGAZIONE: Sostenibilità e sicurezza nel trasporto marittimo - atti del 1^a convegno nazionale (Roma, 23 Maggio 2012), pag. 9-42 (edizioni ingegneria 2000)
- **Title:** "Approccio euristico per il calcolo delle rotte di una flotta di mezzi marini in una missione di pattugliamento" - **Authors:** Balestrieri D. (intecs), Vaccaro G. (Univ. Roma Tre), Pascucci F. (univ. Roma Tre), Portirei F. (intecs). - **Publication:** PORTI & NAVIGAZIONE: Sostenibilità e sicurezza nel trasporto marittimo - atti del 1^a convegno nazionale (Roma, 23 Maggio 2012), pag. 43-65 (edizioni ingegneria 2000)
- **Title:** "HEURISTIC APPROACH FOR PATHS' COMPUTING OF A MARINE FLEET FOR AN UNDERWATER PATROLLING MISSION" - **Authors:** Balestrieri D. (intecs), Vaccaro G. (Univ. Roma Tre). Lancia F. (Univ. Roma Tre), Portieri F. (intecs) - **Publication:** International Defense and Homeland Security Simulation workshop (Vienna - atti del convegno (ISBN: 9789997999140)
- **Title:** " Path planning for marine fleet using heuristic approach" - **Authors:** Balestrieri D. (intecs), Pandolfi R. (Univ. Roma Tre), Vaccaro G. (Univ. Roma Tre). Lancia F. (Univ. Roma Tre), Pascucci F. (Univ. Roma Tre). **Publication:** Int. J. System of Systems Engineering, Vol. 4, Nos. 3/4, 2013

I hereby authorise the treatment of my personal data, according to D.Lgs n. 196/2003