# SEBASTIÁN SERRANO GARCIA

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# **WORK EXPERIENCE** (Follow QR code to see more details)

2005-present Automation department chief engineer. ROVIAR.

Exporting company dedicated to the design and manufacture of turnkey plants and machinery for manufacturers of construction materials.

- Design, construction supervision, outsourcing and cost accounting of electrical and electronic plants of automatisms projects.
- PLCs, computers and other devices programming.
- Preparation of quotations for automation projects.
- Onsite adjusting of the most complex and innovative projects.
- After-sales service to customers.
- Company intranet administration and tools for internal use programming.

# 1992-2005 Manager and development engineer. HEXAINSEL.

Company dedicated to the design and manufacture of industrial automation.

- Manager and owner (33%).
- Design, construction supervision and cost accounting of electrical and electronic plants of automatisms projects.
- PLCs, computers and other devices programming.
- Purchase management.
- Preparation of quotations for automation projects.
- After-sales service to customers.
- Company intranet administration and tools for internal use programming.

## 1989-1992 Industrial engineer. HERMANOS ROYO VILLUENDAS.

Company dedicated to the manufacture of machinery for artificial stone stairs.

- Creation, management and development of the company's automation department.
- Design of electrical and electronic plants of automatisms projects.
- PLCs, computers and other devices programming.

# 1988-1989 Research fellow. ENAGAS (National Gas Company).

Hired through the Fluid Dynamics department of the Industrial Engineers School of University of Zaragoza.

 Development of a numerical simulation program in the field of fluid dymamics (CFD) to simulate combustion in boilers using fuel oil and natural gas as fuels. To be used as a tool to help the company's commercial department to convert boilers to natural gas (Final degree work).



- e1987-1988 Customer assistant. RANDOM Software.
  - Installation, maintenance and training of CAD applications.
- 1986-1988 Scholarship assistant. Fluid Dynamics (CFD) department from Superior School of Industrial Engineers of the University of Zaragoza.
  - Help with realization of practices of the subject for students.
- 1984-1989 Freelance programmer.
  - Custom application programmer for various companies.

## **EDUCATION**

**Bachelor in Industrial Engineering**, specializing in Electricity from Escuela Técnica Superior de Ingenieros Industriales (Industrial Engineers School) of the University of Zaragoza (1983-1989).

**Final Degree Work**, Transformation of industrial boilers from fuel oil to the consumption of natural gas. Development of computational methods to predict their behavior.

## **IDIOMAS**

- Inglés. Intermediate (B2). B1 level certified by Escuela Oficial de Idiomas (Official Language School) of Zaragoza
- Francés. Conversational (B1).

## **SKILLS**

- Operating Systems
  - Windows. Mainly used in my professional career. Network administrator of medium size networks with Microsoft SQL Server as database manager.
  - Linux. I administer a system at a particular level with Apache Tomcat and MySQL as web applications and database managers.
- Programming
  - o Lenguages: C, C++, C#, Java, Basic, Pascal, Python.
  - o IDEs: Visual Studio, Apache Netbeans.
  - Web design: HTML-5, CSS, PHP, Java script.
  - Web applications: HTTP/IP (server-client), Apache Wicket library.
- Databases
  - Managers: Microsoft SQL Server, MySQL Server, Microsoft Access.
  - Data access (DAO): Hibernate, JDBC, ODBC.
  - Language: SQL
- Platforms
  - Desktop apps.
  - Mobile apps (Android).
  - Web apps.

## Office automation and edition software

- Microsoft Office: advanced level user and programming level in VBA and .NET.
- Apache Open Office: advanced level user and programming level (OpenOffice API).
- Autodesk AutoCAD (2D, 3D, Mechanical, Electrical, Inventor): nivel de usuario y programación (VBA y .NET).
- o Adobe Photoshop: user level.
- o Corel Draw: user level.
- o ERP: instalation and customization (CaBaL), development.

# PLCs Programming

- Lenguages: standard IEC 61131-3 language definition: ladder diagram de contactos (LD), function block diagram (FB), structured text (ST), instruction list (IL) and sequential function blocks (SFC) also know as CHART.
- o Devices: Schneider, Siemens, Omron.
- Communications protocols: Modbus, CanOpen, Unitelway. No sólo a nivel de usuario (configuración e instalación) not only at a user level but as programmer, being able to develop communication libraries for computers using these protocols.

## Others

OpenFOAM: numeric simulation in fluid dynamics field (CFD).

#### PERFIL DE APTITUDES

- Aptitudes personales: Responsable. Alto ritmo de aprendizaje, resolutivo en situaciones de alta presión y exigencias elevadas, amante de los retos, dinámico y optimista. Disciplinado y autoexigente.
- Aptitudes sociales: Sociable y extrovertido. Habituado al trato con clientes, trabajo en equipo y con dotes de liderazgo.
- Intereses: Nuevas tecnologías, inteligencia artificial y simulación numérica.