



Gilbert Brault

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Identity

Goals

Professional Experience

65, married with Catherine, 3 kids: Marie, Vincent, Mathilde, French

Value my experience in a new venture

2020-...

Sea Dev

Software Engineer

Presently focused in promoting Jupyter technology for reusable science. I am an experienced Senior System Engineer with a demonstrated history of working in the electrical and electronic manufacturing industry. Strong information technology professional skilled in Control Systems Design, Electrical Wiring, Industrial Ethernet, Modeling, and Water Resource Management.

2000-2020

Schneider Electric

Carros (Nice) (11-20)
Sophia Antipolis (-11)
France

Senior System Engineer

Retired in August 2020.

10-20 Strategy, M&A anti-trust (how to compare big conglomerates) and due diligence. Part of Invensys Acquisition team (\$3.7Bn deal - 2014). Acquisition Engineering expert: technology assessment, new market opportunity screening (Industrial Internet of Things IIoT), List of companies by segments. Competitive benchmark and business intelligence. Innovative visual tools to summarize competitive landscape (marimekko)

Advance Services setup: "Make the most of your Energy": Modeling (PSE-gPROMS), APC and Energy management and efficiency (Heat Recovery, Waste Water), TCP/IP networking (Linux based simulation platform), Market studies (Worldwide Automation Market for Process Industries)

System Platform manager

07-10 EMEA Support manager for Automation projects, coordinating an international team of experts to facilitate customer project execution (Lafarge, SIG Genève, Areva, Alstom...)

Methods and Tools for « Collaboration »

02-07 Creation and deployment of a collaboration framework for activity-oriented groups, geared at value creation for =SE= customers at corporate level.

Community of Practice development

01-07 Building Market CoPs (Airports, Water...), Coordinator's coaching

CoP-1 creation with Martin Roulleaux-Dugage: a Community of Practice of 30+ Fortune 500 French companies (Total, Valeo, Schlumberger, Danone...)

1999-2000

Knexsis

Sophia-Antipolis
France, Boston MA-US

Internet B2B Startup

99-00 Development of a project for an intermediation place (electronic commerce) to market experts' consultations services and animates a customer community in the industry & infrastructure automation field (PLC, networks).

1988-1999 Schneider Automation Sophia-Antipolis France	Program Manager <u>98-99</u> New project setup: selection & technical definition of automation components projects (annual budget of 1,5M\$) Global Product Manager <u>97- 98</u> New Information technologies integration program into Automation components (PLC) (Setup of 20MF Research contract) <u>95- 96</u> Automation Offer strategy for Power train Market <u>92- 94</u> Motion control PLC modules (family of 10 modules for "PLC", 20MF turnover) and Programming consoles (PC, 30MF turnover) Software R&D 88- 92 Technical leader for development of a framework Integrating automation tools for automation design (50.000 lines in C language)
1987-1988 SEI Bayonne, France	Program Manager Automation Applications Design and Industrial IT: battery project for SAFT Bordeaux
1983-1986 SORMEL MATRA Besançon France	Automation & Electrical design Manager <u>84 –86</u> Flexible assembly lines for IBM ribbon printer, leading a team of 25 technician and engineers R&D Engineer 83 – 84 Advance R&D group (Robot development)

Educational Background

1982-1986 LAB / Sormel Besançon France	PhD on “Productique” (CIFRE) “Flexible Assembly Systems”
1980-1982 ENSMM Besançon	Engineer (Automation elective), Maîtrise de mécanique
1975-1978 Lycée Condorcet Paris	Classe Préparatoire

Languages

- French (my native language)
- English (Schneider level 2,5)

Competencies**Information Technology**

- Formal languages representation and validation
- Data languages (HTML, XML, SQL (sqlite)...)
- Communication (client/serveur TCP/IP),
- Languages Python JavaScript, Java, C, C++, C#, PHP... o Distributed Object Architecture (Corba, Java, DCOM, .net...) o OS: Windows, Windows Server, virtualization (VMware, Microsoft), Linux (Debian), Container Technology (Docker, Kubernetes)
- Internet, Cloud and IIoT
 - Jupyter Lab interactive computing framework
 - Internet protocols (HTTP, DNS...)
 - Cloud: Google Compute engine, Microsoft Azure
 - Embedded computing: Arduino, STM o IoT: node.js, Node red, MQTT...
 - Portal (Websphere...), software architecture, component (EJB, JSP)
- Manufacturing Information System (SAP, SCADA, automation)
- Simulation Software in Physics and Chemistry (gPROMS, Modelica)
- Electrical Motor control (Servos) & Motion Control theory
- PLC (Programmable Logic associated languages (IEC 1131))

Marketing

- Product Plan, Development strategy for markets
- Product Specification, project management and associated development
- Communication Documents about products
- Product & application Support
- Competitive Analysis

Project

- Contracts
- Project setup: Looking for people & goal specifications
- Development & specifications Methods: Business process/Functional matrix/Use cases
- Animation methodology & knowledge management
- Theory and application of Community of Practice

Community design

- Community Coordinators Coaching / Forum design & animation
- Event design
- Open Space / Creativity Methods

Industry & Applications knowledge

- Automotive Industry (Powertrain focus)
 - Machine Builders industry for o Food & Beverage / Assembly lines
 - Electrical Industry: Electro-mechanical & automation components
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- Ceramic Industry

Economics et accounting

- Knowledge of the French accounting system

Writing skills

Article, notes, specification, patent & conferences writing

- Specification of the expert service for the B2B place (a collaboration with my partners)
- 3 patents on Internet techniques applied to automation
- Competition analysis web site for small PLC
- INCOM'98: full conference (IFAAC)
- Promotional leaflets for Motion control PLC add-ons, Laptop PC
- Launch documents
- Catalogue authoring
- Product specification: Motion controller, laptop PC...Project documentation PhD memo

Samples

See a sample of my papers here

- <https://github.com/gbrault/mypapers>
 - Railroad Syntax Diagram, Language validation generator, EBNF, Grammar Representation ([link](#))
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