Franck Talbart

91400 Orsay
33700 Mérignac

franck@talbart.fr franck.talbart.fr

SENIOR SOFTWARE ENGINEER - PROJECT MANAGER

➢ CAREER JOB OBJECTIVE

To work on cutting-edge technologies and challenging tasks where I can effectively contribute my skills to the growth of the project and advance my professional career.

➢ WORK EXPERIENCE

Since 11-2019 — **Scality**, Paris

➙ Since 11-2019 : **Senior Software Engineer**

Low-level development on the backend of a large-scale S3 object storage system (5 PB) with dual-level data protection in a distributed environment. Responsibilities include design, implementation, bug fixes, and R&D.

QA lead: managing a team and developing a test automation framework to stress-test the product in a very large production environment. Framework used to qualify each release of the product under catastrophic events (power failures, hardware failures, etc.).

Python, C, Kubernetes, Docker, AWS, Agile software development

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Since 11-2009 — **ISTY, Engineering School**, Vélizy-Villacoublay

➙ Since 2024 : **Member of the Board of Directors at ISTY**
➙ Since 2020 : **Project Coordinator**
➙ Since 2014 : **Internship Coordinator**
➙ Since 2013 : **Member of the Validation Panel (VAE)**
➙ Since 2013 : **Teaching Assistant, System Administration and UNIX**
➙ 11-2009 - 01-2010 : **C Language Tutor**

11-2015 / 10-2019 — **DDN Storage**, Meudon (France), MD (U.S.A.)

Design and development from scratch of an HPC (High Performance Computing) oriented framework to enable test automation on a burst buffer in a distributed environment.

The tool includes a scalable system deployment on Slurm and Amazon EC2 (up to 1000 nodes), a complete API to execute arbitrary code and scripts remotely, a performance testing system, a chart generator, a defect reproducer, and many other internal modules.

Python, Flask, SQLite, JQuery, C, Agile software development, ~ 35,000 lines of code

➙ 01-2018 - 10-2019 : **Technical Leader**

In charge of team management (engineers, team size: 3 to 5) and the research and development of the framework.

The tool is used in Maryland (USA), Pune (India), and Paris (France) to extensively test the burst buffer.

➙ 11-2015 - 12-2017 : **Quality Assurance Engineer**

In charge of the quality assurance for IME (Infinite Memory Engine), a burst buffer developed at DDN. Designed and developed the first release of the framework.

04-2010 / 10-2015 **Exascale Computing Research (Intel, CEA, GENCI, UVSQ)**, Versailles

Design and development of the CTI (Codelet Tuning Infrastructure) tool. It is a repository management system for performance experiments.

The tool automates the analysis of applications and provides a clustering approach (data mining) to give optimization hints for a set of loops. It incorporates a variety of plugins enabling loop detection, navigation, and performance analysis (static and dynamic analysis of the application).

Python, C, Bash, PHP, Elastic Search, SQLite, ~ 55,000 lines of code and 100,000 stored codelets
Website: https://gitlab.com/franck.talbart/codelet_tuning_infrastructure/-/wikis/home

➙ 08-2011 - 10-2015 : **Project Manager and Technical Leader**

In charge of team management (engineers and interns, team size: 4 to 6 members), executive recruitment, and research and development, in collaboration with Intel Research (Illinois) and CORIA (Rouen). Finished a stable release of CTI, which is publicly available as open-source software on the internet. The tool was deployed in the CORIA laboratory to provide performance monitoring (automatic generation of weekly reports presenting the latest performance analysis of a combustion simulator).

➙ 09-2010 - 07-2011 : **Expert Engineer**

Designed and developed the first stable release.

➙ 04-2010 - 08-2010 : **Internship**

Studied the needs and implemented the first prototype of CTI. Had the opportunity to work with international researchers (Russian, American, Spanish).

06-2009 / 09-2009 **Thales Services, Service Desk**, Elancourt

➙ **Internship**

Developed a module for the automatic generation of resource planning and skills: design of an operational research algorithm. Research on user needs, writing specifications, and software implementation.

PHP, MySQL, SQL Server, ~ 7 000 lines of code

04-2007 / 06-2007 **Thales, Systemes Aeroportes**, Elancourt

➙ **Internship**

Updated a tool (Digibus and Video Exploitation SubSystem) used for the Mirage 2000.

Delphi, ~ 3 000 lines of code

➢ EDUCATION

2010 **ISTY**, Versailles

➙ **Masters degree in Computer Science**

European Masters degree in computer science, **ranked first during the three years**

2007 **IUT d'Orsay**, Orsay

➙ **DUT Computer Science**

Equivalent to second year of BSc Computer Science, **ranked 3/220**

2005 **Lycee St François d'Assise**, Montigny-Le-Bx

➙ **Baccalauréat Scientifique**

High School Diploma equivalent to A-level, with honours

➢ LANGUAGES

- **French** : Mother tongue
- **English** : Fluent

➢ SKILLS

- **Languages** : C, C++, C#, Python, Bash, Java, Delphi, UML
- **Databases** : SQL, Oracle, MySQL, SQLite
- **Web** : (X)HTML, , CSS, PHP, JS
- **Methodologies** : Agile
- **Formats** : XML, JSON, YAML
- **Tools** : GIT, Docker, Kubernetes, Jenkins, Travis CI, Jira, Ansible, Gerrit, Gitlab, Grafana
- **Operating Systems** : Distributions GNU/Linux

➢ MISCELLANEOUS

- Design and development of an open-source framework to remotely control robots with very low latency
  C/C++, JS, WebRTC, ~ 10,000 lines of code
  Website: https://nestorpi.talbart.fr
- Built a motion simulator with a VR headset
  Designed a virtual reality environment to replicate the famous "Back to the Future: The Ride" simulator ride from Universal Studios. An article has been published on the official movie website.
  C# (Unity)
  Website: http://bttftrvr.talbart.fr

- Driver's license
- Traveling, Sports