

Franck Talbart

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SENIOR SOFTWARE ENGINEER - PROJECT MANAGER

➤ CAREER JOB OBJECTIVE

To work on cutting-edge technologies and challenging tasks where I can efficiently contribute my skills to the growth of the project and build 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 (5 Pb) with dual-level data protection in a distributed environment. Design, implementation, bugfixes, R&D

QA lead: management of a team and developpement of a test automation framework to stress-test the product in a very large production environment. Used to qualify each release of the product with catastrophic events (power failures, HW failures, etc ...).

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

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 the 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 of 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 the team management (engineers and interns, team size: 4 to 6 members), the executive recruitment and the research and development, in collaboration with Intel Research (Illinois) and CORIA (Rouen). Finished a stable release of CTI which is publicly available as an 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 last performance analysis of a combustion simulator).

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

Designed and developed a first stable release.

→ 04-2010 - 08-2010 : **Internship**

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

Since 11-2009

ISTY, Engineering School, Versailles

→ Since 2020 : **Project Co-ordinator**

→ Since 2014 : **Internship Co-ordinator**

→ Since 2013 : **Member of the Validation Panel (VAE)**

→ Since 2013 : **Teaching Assistant, System Administration and UNIX**

→ 11-2009 - 01-2010 : **C language Tutor**

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, specifications writing 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 a very low latency
C / C++, JS, WebRTC, ~ 10 000 lines of code
Website : <https://nestorpi.talbart.fr>
- Built a reality motion simulator with a VR headset
Designed a virtual reality environment to reproduce the famous "Back to the Future: the Ride" simulator ride from Universal Studios. An article has been published on the official website of the movie.
C# (Unity)
Website : <http://bttftrvr.talbart.fr>
- Driver license
- Travels, Sports