

# 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**

Developping a test automation framework to stress-test a large-scale storage solutions in a very large production environment: node ejection, disk ejection, etc ...

Python, C, Kubernetes, Docker

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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.

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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](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).

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Since 11-2009

**ISTY, Engineering School, Versailles**

→ Since 12-2013 : **Teaching Assistant, System Administration and UNIX**

Responsible for the System Administration lectures at the ISTE school (final year of the engineering curriculum) and the UNIX tutorials at the ISTE school (first year of the engineering curriculum).

→ Since 03-2014 : **Internship co-ordinator**

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

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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

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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

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## ➤ EDUCATION

2010

**ISTY, Versailles**

→ **Masters degree in Computer Science**

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

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2007

**IUT d'Orsay, Orsay**

→ **DUT Computer Science**

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

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2005

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

→ **Baccalauréat Scientifique**

High School Diploma equivalent to A-level, with honours

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## ➤ 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