

### Bachelor in Computer Sciences

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#### Subject summary

Study of the React JS Javascript library and implementation of an illustrative monitoring module (web and mobile).

#### Description

The internship consists primarily of an in-depth study of the ReactJS library:

- Presentation of ReactJS (strengths, weaknesses, peculiarities, community, ..)
- Implementation and first steps with ReactJS
- Study of the testing features offered by ReactJS
- Study of available extensions

Following this study, the internship will consist in the development of an illustrative application including the characteristics of a WEB application such as the one developed by EMASphere:

- Authentication, security context
- RIA / single page application -> routing / navigation
- Modularity of dependencies
- Configuration forms (CRUD type screens)
- Dashboards and KPI's (modern and diverse graphics)
- POC of a mobile version of this app (if possible)



# Internship proposal

2017-2018

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### Areas and scope:

During the internship and the work of graduation, the student will have to approach and master the following topics:

- Technical and functional analysis of the illustrative application
- Web Development: HTML, JavaScript, CSS
- Packaging, Testing, Build, Deploy app
- Development cycle following the AGILE methodology - Scrum
- Synchronization and collaboration with the backend team to use the API

### General goal:

Validate the choice of ReactJS for EMASphere as a potential replacement of current web framework.

## Information

Entreprise	<b>EMASphere S.A.</b>
Adresse	B-1435 Mont-Saint-Guibert
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## Technical stack and programming languages used

### High-level Architecture

- Micro-services, event-driven architecture

### Programming languages and main frameworks used

- HTML5 / CSS3 / Javascript
  - REACT Js
  - Bootstrap
  - LESS / SASS



### Database

- PostgreSQL



### Deployment

- Cloud Computing - Amazon (AWS)

### Methodology

- Agile / Scrum
  - Roadmap (backlog / roadmap) of the project
  - Cutting the project in iterations
  - Functional Analysis Documentation
  - Daily progress
  - Review of iterations
  - Progress Monitoring (Jira)



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#### Technical constraints:

- Integration with our development teams and respect for working methods:
  - Source Code Sharing (GIT)
  - Emphasis on Test Driven Development
  - Bug and issue tracking with Atlassian Jira

#### Intérêts de cette proposition de stage

#### Internship proposal benefits

**EMAsphere S.A.** is a software services company based in Louvain-la-Neuve. EMAsphere offers a financial dashboard solution targeted on company managers (SME) that, connected to the accounting system and other data sources, gives a clear, flexible yet ergonomic view of the key performance indicators, whether financial or operational.

We will provide the interns with a **professional work environment**, giving the following opportunities:

- Experienced supervisor providing a strong technical environment and methodology
- High availability of employees working on the same environment
- Ideal work environment (physical location next to the supervisor and other employees, provided computer, network access, direct usage of EMAsphere development environment)
- Internship subjects using state-of-the-art technologies
- Engaging work environment with friendly atmosphere
- Real-world professional experience internship
- Effective job opportunities at the end of the internship  
(EMAsphere is growing and is always looking for talented young profiles)

Candidates for an internship are invited to send a CV and a cover letter to [internship@emasphere.com](mailto:internship@emasphere.com), and will quickly be contacted for an interview.