

# AI/ML for predictive maintenance

Groupe LGM



**NICOLAS BAUDIN**  
INTERNSHIPS IN FRANCE INITIATIVE

Name of the hosting institution in France	Groupe LGM
Name of the host laboratory / research team	Ecole Polytechnique Féminine
Address	3 bis rue Lakanal 92330 Sceaux
Web site	<a href="http://www.epf.fr/presentation-de-la-recherche-epf">http://www.epf.fr/presentation-de-la-recherche-epf</a>
Name of the supervisor	Antoine GAUME
Function	Head of Digital and Engineering Major
Email	antoine.gaume@epf.fr

## Internship offer

Topic of the internship (title)	AI/ML for predictive maintenance			
Proposed dates of the internship*	<b>Start</b>	2020-05-04	<b>End</b>	2020-11-27

\* The supervisors have indicated the dates proposed are flexible and are able to be postponed subject to COVID-19 border closures.

### Scientific and academic objectives of the internship (detailed description of the internship content, work expected from the intern and expected outcomes):

The objective of this internship is to write machine learning algorithms intended to automatically identify system use profiles, to detect weak signals or behaviour drifts, and to assess RUL (Remaining Useful Life) of components. Physical data processing will go through statistical analyses, implementation of signal processing (e.g.: vibrations) and writing/validation of ML algorithms within Dataluku (python/TensorFlow) and/or Matlab Framework.

Name of industrial partner	Groupe LGM
Role of the industrial partner in the internship project	Groupe LGM will be the hosting company, where the intern will work. The internship topic has been designed by Groupe LGM and its academic partner, the French engineering School "Ecole Polytechnique Féminine" but the day to day job will be ensured by a Groupe LGM mentor. The purpose is to obtain scientific results in France, in order to use those results for our Australian branch, helping it to win new projects.
Main contact at the French industrial partner	Xavier Allegrini
Email of contact at French industrial partner	xavier.allegrini@lgm.fr
Main contact at the French industrial partner's branch in Australia	Franck BLOOM
Email	franck.bloom@lgm.fr

## Expected profile of applicant

Level of study	Master's student
Discipline	Engineering
Required qualities, knowledge and skills	You are completing your final year of top engineering school or specialised Master and looking for your end-of-course internship (6 months). You want to improve your skills in BigData sector (DataAnalyst/AI) and in predictive maintenance and you are willing to participate to meticulous scientific studies in a high tech environment.