

Dear American Friends of Arts & Metiers ParisTech,

I hereby, *RIBARD Raphaël*, give my full authorization to publish the content of this letter on your website in recognessence of the financial support that you have provided me with.

Full Name: RIBARD Raphaël

Date: 09/25/2011

Signature

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1. Name of student, background, professional aspirations (1 paragraph, 5 lines)

My name is Raphaël RIBARD and I studied at Arts & Métiers ParisTech and Supélec. I studied both mechanical engineering and electrical engineering and I will graduate in September, 2012. I want to work for an oil and gas company abroad in the future because I am really interested in the technologies developed by these companies and I appreciated working in a multicultural environment this summer. More accurately, I enjoy working in English and discover countries.

2. Please tell us how you were able to get your internship, and the date and length of your stay (1 paragraph, 5 lines)

I got my internship thanks to the American Friends of Arts & Métiers ParisTech (I applied online). I want to thank all the team for their help. Indeed, I could find the perfect match for my internship thanks to team members who reviewed my resume and my cover letter. I am sure it will be useful in the future as well! I really appreciated the diversity of the internships proposed by the AFAM as well. I interned Schlumberger for almost three months during the summer from June, the 26<sup>th</sup> to September, the 14<sup>th</sup>.

3. Please present the company or university where you interned and the objectives of your internship (1 paragraph, 10 lines), and why you were excited to work there. (1 paragraph, 10 lines)

Schlumberger is the leading oilfield services provider, trusted to deliver superior results and improved E&P (Exploration and Production) performance for oil and gas companies around the world. I interned as an Electrical Engineer and I had to work on two different projects. I was in the drilling and measurement team. They wanted to standardize how tools were handling their data in real-time whether sending it to the surface or recording it on a memory card. As a result, my objective was to design a test strategy for this bench of electronic cards. I had to talk with a lot of experts in order to evaluate the state of the art at Schlumberger regarding the tests and propose directions to follow in order to build an efficient test strategy. My second project was more hands-on; I had to develop a code to handle the recording of maintenance data on a dynamic aspect into a flash memory card. In the future, the data recorded this way will help to replace the different tools before they fail on the field. A lot of things were already done but it was really not clear and the code was not fully written. Thus, each software developer at Schlumberger was forced to develop the concept on his own. I had to clarify everything and propose a unique code for all the company.

I was excited to work here because it is a huge company. I was amazed by the organization. Everything was well-handled from the housing to the transportation. Moreover, there were interns from all over the world, I really appreciated it. I also discover the USA for the first time and I could see how different this country is. Houston is really a place to visit for its cultural diversity and its spread-out aspect. I was amazed by the six lane highways crossing in the air! On a technical aspect, it was really interesting because I met experts eager to share their knowledge. I learnt a lot during this internship and I was really amazed by the technologies developed by Schlumberger. I did not expect the oil and gas technologies to be as challenging technically

speaking! Moreover, I found it exciting to work in English with people from all over the world. I discovered different cultures and different ways of thinking on an engineering point of view. I am sure that what I learnt during this internship will help me in my future career.

4. Please tell us which expenses which will be covered by the funds provided by American Friends of Arts et Metiers (1 paragraph, 5 lines)

Everything was covered by Schlumberger from the housing to the transportation. Even the flight tickets were purchased by the company.

5. Please summarize your internship, how you achieved the company/university's objectives (1 paragraph, 5 lines), as well as your own personal goals and lessons from this experience (1 paragraph, 5 lines), and finally how this impacted your professional aspirations (1 paragraph, 5 lines).

I achieved my objectives thanks to the help of the Schlumberger engineers. I talked to a lot of people, I learnt a lot and I was able, at the end, to propose solutions. I had to make the things clear for my work to be useful after my departure. I had to think the engineering problems from a systemic point of view. The most important was to find the problems the team will have to face in the future. Raising possible issues in the future was really valuable for the company. It was even more interesting than solving the different issues since the company can solve them but it is more difficult to find them before they appear.

I learnt to think from a systemic point of view during this internship. Moreover, I learnt that the engineering work is much more about raising the future possible issues for a specific project than solving them which is the "easy part" of the job! My personal goals were to improve my English and discover the oil and gas domain. This is exactly what I did during this internship. And moreover, I discovered how rewarding it is to help the Schlumberger company because they are totally aware that their business is based on in-house new technologies.

This definitely impacted my professional aspirations. Indeed, I have chosen to perform my last engineering school year at Ecole Centrale Paris in the energy major and my specialization focuses on fossil fuels. I really want to work for an oil and gas company in the future. Moreover, I discovered the Tech & Field Program developed by Schlumberger. It is a way to experience working as a field engineer as well. I am convinced that it is mandatory to have an experience in the field close to the client in order to design more user-friendly tools.