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RAPHAEL MERX

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EDUCATION

UC Berkeley — **Berkeley, CA** — **May 2014**
Master of Engineering in Industrial Engineering and Operations Research

Ecole Centrale Paris — **Paris, France** — **June 2013**

- "Diplôme d'ingénieur" (equivalent of Master of Engineering)
  In the top 3 Engineering Schools among more than 200 in the country.
  Ranked in the top 10% of the School's students
- Second-year coursework: High performance computing; Random modeling; Queuing theory.
- First-year coursework: Computer Science; Statistics; Probability; Physics; Business Management.

lycee Louis Le Grand — **Paris, France** — **June 2011**

- MPSI – MP* ("classes préparatoires")
- Intensive two-year university level preparation in Maths and Physics for the highly competitive entrance exams to the French Grandes Ecoles.

WORK EXPERIENCES

Developer, Memoryclip (student project) — **Paris, France** — **Feb 2013 – June 2013**
"A new bookmarks manager: link URLs together for easier retrieval."

- Developed entirely a Chrome extension which enabled a 5x time gain for users.
- Designed the client-server interaction model for the website.
- Supervised the progress of the project (timing, final goals, step-by-step improvements).

Developer, Creage (student project) — **Paris, France** — **Sept 2012 – Feb 2013**
"A 3D web browsing experience"

- Worked with four other students and an expert in cognitive science.
- Created the spacing algorithm.
- Developed working knowledge in Lua (programming language).

Intern , Sunfor Sichuan Lightning — **Chengdu, China** — **Summer 2012**

- Worked in a factory of 150 employees
- Found a mathematical method that could be used regularly to improve productivity.
- Took intensive Chinese lessons for 3 weeks in Shanghai beforehand.

Apprentice , IBM — **Paris, France** — **Nov 2011 – June 2012**

- Worked in a consulting team of about 100 people.
- Found and implemented a software that eased communication between consultants.

Volunteer, Service Civil International — **Krnjak, Croatia** — **Summer 2011**

- Helped renovate a school destroyed during the Yugoslav Wars.
- Organized a show aimed at making inhabitants familiar with ethnic tolerance.

COMPUTER SKILLS

Programming	Python, Java, SQL, Lua
Web dev	Javascript, PHP, HTML, CSS
Computation	R, Octave
MS Office	Excel, Powerpoint, Word

LANGUAGE SKILLS

French	Native
Spanish	Intermediate level
German	Intermediate level
Chinese	Intermediate level

EXTRACURRICULAR ACTIVITIES

- Interests : geopolitics, Asia, boxing (have been practicing at a competition level for five years)
- cHeer-uP! (student organization): Secretary-general. Help young adults who have cancer realize their projects.
- CeC (student organization): tutor in Math and Physics for disadvantaged high school students

Dear Mr Yien, Dear Mr Fleming,

From the first time I have read the PDF describing your capstone on, I have considered it as the perfect fit for me this year. Let me first introduce myself. I did my undergraduate in France, where my curriculum has slowly deviated from pure mathematics to computer science. Last year, I became eager to specialize in data sciences, which led me to take two courses on Coursera: “Computing for Data Analysis” (Johns Hopkins U.) and “Machine Learning” (Stanford). I also became more and more attracted to start-ups and willing to make a career in small tech companies. With these background and interests, it was only natural for me to apply for a Master’s degree in IEOR at Berkeley, next to Silicon Valley.

Last year, I also took part in two five-month-long computer science projects that involved four other students from my university. I enjoyed a lot taking part in these projects, both because I liked the everyday challenge of coding, and because they gave me valuable insights about how to work in a team on a long-term project. At the beginning of the second one, I realized how much the first had already taught me in terms of coding and group organization.

I am sure that these two experiences will help me cope better with the capstone project. I have now a pretty clear view of how to decompose a long-term computer science project into several sub-tasks. I think that this skill is key to the success of the project, since a group can lose a lot of time and energy because of a lack of organization.

What these projects brought to me enticed me to look forward to the capstone project I will take part in this year. In particular, the one you propose would be a great opportunity to have a more project-oriented approach to data sciences. I would also like to seize this opportunity to work with EECS students and learn from them. Apart from data analysis, I am equally interested in how to display the information we found in a beautiful and effective manner. In general, I believe that UI is as important as the service you provide. The skills I have in JavaScript, which I acquired through the development of a Chrome extension and through general website development, should prove useful for this part of the project.

Beyond the technical aspects, this project aims at answering a question that I couldn’t be more interested in finding the answer: “What makes a startup succeed or fail?” Even though I would enjoy working on any data mining project, it is much more motivating to work on one where every insight you get is valuable. Moreover, as the general startup ecosystem appeals to me, I would be happy to provide startups with information that helps them succeed.

More generally, I am eager to learn more about the Lean Launch method in general, because I think its focus on customer is key to a start-up’s success. Your positioning is also one of the things I appreciate. A lot of people are willing to create start-ups, and leveraging this environment rather than creating a consumer product is an astute idea.

In summary, my skills in data analysis, in the programming language R, in coding in general, and in how to conduct a long-term project with other students make me a likely candidate for this project. Moreover, I am more motivated than ever in working hard on the project you propose and doing my best to make this capstone project a success. I sincerely hope to work with you this year, and I look forward to hearing from you.