

La Vie en Diversités

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Agenda

1. About Me
2. Vulcanus in Europe
3. Internship at Schlumberger
4. My motivation to come Europe
5. From different viewpoints
6. Conclusion

About Me

- **PhD student at The University of Tokyo**
 - Dept. of Aeronautics and Astronautics
 - Image Processing, Statistical Inference
- **1-year exchange at University of Toronto (Canada) in 2011**
 - Dept. of Computer Science
- **Currently working as intern at Schlumberger within Vulcanus framework.**

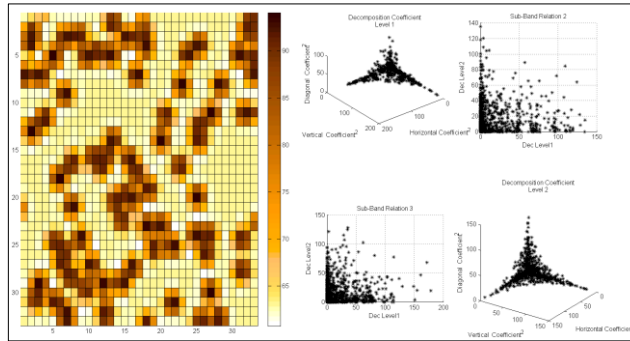
Vulcanus in Europe

- **1-year training program**
 - 15 weeks of language courses
 - 8 months of internship
 - French courses in Amboise
 - Internship in Paris



Internship at Schlumberger

- **Interpretation Engineering**
 - Developing a new algorithm for automatic image analysis



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Why I applied for VinE?

- My Experience from Toronto 1
 - **Living in a foreign country made me refine the reason and objectives of my stay repeatedly.**
 - “Why I came here?”
 - “What do I do?”
 - **I learned a lot from this self-motivating.**
 - “I came to study artificial intelligence!”
 - “I make the most of this environment!”

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Why I applied for VinE?

- My Experience from Toronto 2
 - I had to make things out by trial and error.
 - “How do I register my class?”
 - “How do I find my apartment?”
 - “How do I open a bank account?”
 - I became tough.
 - I wanted to challenge myself more.

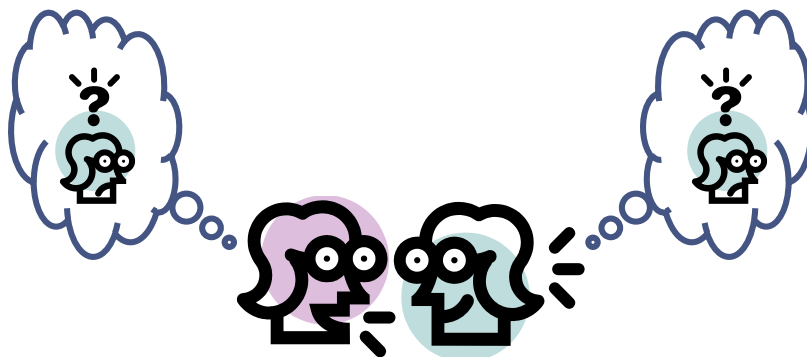
Why I applied for VinE?

- I wanted to know if I am suited to work in global environment.
 - My academic knowledge
 - My communication skills
 - My mentality etc...

Are they at the level good enough for international work environment ... ?

After I started working

- Communication was difficult (and it is still).



After I started working

- But it was not impossible, thanks to the universal language called 'Mathematics'

$$p(K = k|X = x) = \frac{p(X = x|K = k)p(K = k)}{p(X = x)} \propto p(X = x|K = k)p(K = k)$$

$$p(X = x|K = k) = \prod_{s \in S} p(X_s = x_s|K_s = k_s) = \prod_{s \in S} \frac{1}{\sqrt{2\pi\sigma_{k_s}^2}} \exp\left\{-\frac{(x_s - \mu_{k_s})^2}{2\sigma_{k_s}^2}\right\}$$

$$p(K = k) \propto \exp\left\{-\beta \sum_{\{s,t\} \in C_2} [1 - \delta(k_s, k_t)]\right\}$$

After I started working

- That naturally led me to think ...

“Am I really eligible to work here?”

“Why do they take Japanese interns?”



After I started working

- In the job description, it says

**“It is important to have different
background /culture of employees.”**

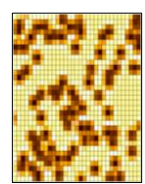


From different viewpoints

“We work on images, and there are such proposed methods, so let’s find the most suitable one!”



My Supervisor



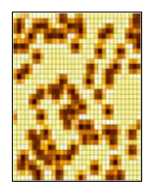
Me

“We need to study the property of images we work on.”

From different viewpoints



My Supervisor



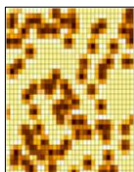
Me

“There is one problem we need to avoid in the current calculation.”

From different viewpoints



My Supervisor



Me

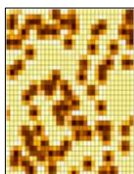
“This formula might let us avoid the problem.”

From different viewpoints



My Supervisor

“I did research on related approaches.
How about this formula?”



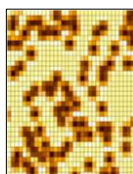
Me

From different viewpoints

“Génial !!”



My Supervisor



“It works!!”

Me

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From different viewpoints

- **Our different ways on approaching the problem converged to a new approach.**
 - Without him, I would not have arrived at the new approach.
 - Without me, he would not have thought of applying the approach he knew.
- **I went through the moment when a new idea arose from “Diversity”.**
- **Other researchers in Boston also found our new approach interesting.**

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Conclusion

- **Motivated people in stimulating and difficult situation can learn a lot from it.**
- **Companies and interns, both of them can learn and benefit from the diversity between them.**

Acknowledgement

- **Thank you for listening.**
- And also I would like to thank ...
 - People from EU-Japan Centre for Industrial Cooperation for helping me through entire the program.
 - People from Schlumberger for giving me a very interesting experiences.