

# Louis DOUGE

NATIONAL UNIVERSITY OF SINGAPORE · INDUSTRIAL & SYSTEMS ENGINEERING · LOOKING FOR AN INTERNSHIP

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*"Be the change that you want to see in the world."*

## Summary

Mathematician as well as a mechanical engineer by training, I am interested in applying Artificial Intelligence technics to real-world Operations Research problems. While passionate about powerful algorithms and mathematical concepts, I have a deep interest for data analysis to create meaningful visualizations. I am astonished by the variety of such tools and I am always willing to learn more about them. Above all, I am convinced that a successful engineer is a charismatic team player, and that is what I am aiming at.

## Education

### National University of Singapore

[Singapore](#)

MASTER OF ENGINEERING - INDUSTRIAL & SYSTEMS ENGINEERING (DOUBLE DEGREE PROGRAM)

Aug. 2016 - PRESENT

- Vehicle Routing Problem with Stochastic Demand inspired by real logistics companies.
- Reinforcement Learning (OpenAI gym Python library), Large datasets on Traffic flow
- Neural Networks (MLP, RBF, SOM, Markov Decision Processes)

### ENSTA ParisTech (Master's degree, year 1) - "Grande École"

[Paris, France](#)

"DIPLOME D'INGÉNIEUR" CURRICULUM

Sept. 2015 - May 2016

- Stochastic Calculus and Statistics for Finance
- Stochastic Algorithms - Martingales - Markov Chains
- Option Pricing using generic Monte-Carlo methods (C++) - Chess player program (C++)

### ENSTA ParisTech (Bachelor's degree) - "Grande École"

[Paris, France](#)

"DIPLOME D'INGÉNIEUR" CURRICULUM

Sept. 2014 - June 2015

- Double Major in Applied Mathematics and Mechanics
- Digits recognition using Kohonen Maps (Python) - Finite Element Method (Matlab)

### Lycée Sainte-Geneviève (Bachelor's degree)

[Versailles, France](#)

"CLASSES PRÉPARATOIRES" - PREPARATORY CLASSES

Sept. 2012 - Jul. 2014

- Major in Mathematics, minor in Physics

## Experience

### New York University - Computer Science Department

[NY, USA](#)

RESEARCH INTERN - SUPERVISOR: BHUBANESWAR MISHRA

May. 2016 - Jul. 2016

- Simulated Natural Language Evolution through artificial dialogs
- Bayesian Echo Chamber, Kohonen Self-Organizing Map, Word2vec algorithm

### Ignity Inc. - Precision oncology company

[San Diego, USA](#)

SUMMER INTERN

Jul. 2015 - Aug. 2015

- Coded promotional movies dedicated to investors (PyMOL Python Library).
- Assisted a scientist for data collection from a synchrotron, and protein purification

### Forum Trium - International Company Fair

[Paris, France](#)

VICE-PRESIDENT

Jan. 2015 - Jan. 2016

- Budget: €200K - 150 companies in Parc des Expositions, Paris.
- Team management, responsible for fire safety and security, promotion of the event

## Technical Skills

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### Languages

- French: Native
- English: Full Professional Proficiency
- Spanish: Intermediate

### Programming Skills

- Core Competences: Python (2.7 and 3.5), C++
- Python packages: Numpy, Matplotlib, Scikit-learn, tweepy, Basemap...
- Others: Matlab, R, C, XHTML/CSS, SQL, Javascript (D3.js)

### Computer Skills

- OS: Mac OSX, Linux (Ubuntu), Windows
- Git: <https://github.com/doulouUS>
- Latex, Microsoft Suite, Adobe Photoshop

## Award

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### Scholarship - Fondation de Coopération Scientifique - Université Paris-Saclay

*Paris, France*

*May 2016*

Awarded after selection process, to help conduct my NYU's research project.

## Personal Interests

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### HOBBIES INCLUDE

- Ski (Competition level), Golf (licensed)
- Sailing (crew member & Sponsor manager at ENSTA's sailing association) see [www.enstaquet.ensta-paristech.fr](http://www.enstaquet.ensta-paristech.fr)
- Mountain Trailing, Traveling (17 Countries)
- Photography and Classical Piano