#### JEAN-ALEXANDRE TURBAN

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### **EDUCATION**

## California Institute of Technology (Caltech)

2012 - 2016

- · Bachelor of Science in Mechanical Engineering and Minor in Computer Science
- Relevant coursework: Statics and dynamics, thermodynamics, mechanics of materials, prototyping and design, fluids, algorithms, discrete math, data structures.

#### **WORK EXPERIENCE**

### California Institute of Technology

Fall 2013 -

Computer Science and Physics Tutor

 Help students with various subjects including Newtonian physics and computer languages such as C++ and Python

### Jet Propulsion Laboratory – NASA

Summer 2014

Summer Intern

- Worked with a team in the Advanced Deployable Structures group to construct a high precision deployable carbon fiber ring truss, thus furthering the development of NASA's "Starshade"
- $\bullet$  Built several components with a precision in the order of 10<sup>-3</sup> and put together a gravity compensation fixture to offload the entire truss
- · Awarded Homer J. Stewart Fellowship for summer research in the field of aeronautical engineering

## California Institute of Technology

Summer 2013 – Spring 2014

Undergraduate Researcher

- · Research for Bill and Melinda Gates "Reinvent the Toilet Challenge" on Caltech's behalf
- Developed and implemented a system to communicate with and receive information from Caltech's prototype over GSM (cellphone) networks which allows for transmission of data in 3<sup>rd</sup> world countries
- Awarded James J. Morgan Fellowship for summer research in sustainability

#### **PROJECTS AND ACTIVITIES**

- · Currently working on developing my website and learning to use microprocessors for use in quadcopters
- Engineering Without Borders working with the club to design and construct a fresh water spring source in Nepal
- Caltech Bouldering club founder and president. I plan trips and raise money for members to go rock climbing
- NCAA DIII Soccer two year varsity

#### **ADDITIONAL SKILLS**

- Proficient in Solidworks, Windows, Linux, Mac OS, Python, C++, HTML, CSS, VBScript
- · Fluent in English and Spanish along with basic knowledge of French