Theo Franquet

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EDUCATION

2014-2018   **Imperial College London – MEng Electrical & Electronic Engineering – 1st Honors in Year 3.**
Year 3 modules include: Mathematics for Signals & Systems, Control Engineering, Electrical Energy Systems, Artificial Intelligence, Embedded Systems, Machine Learning, Real Time Digital Signal Processing, Mandarin.

Summer 2013   **Columbia University, New York – Entrepreneurship course**

Summer 2012   **Brown University, Providence – Introduction to Engineering course**

2006-2014   **French International School, Hong Kong**

ENGINEERING PROJECT

2015-2016   **Smart thermostat design and prototyping**
Leading a 7-student team, designing a connected thermostat that displays personalized information and advice in real time, as she/he sets up heating. Involves use of Raspberry Pi computer and database management.

ENGINEERING INTERNSHIPS AND RESEARCH

2017   **Natron Energy, SF Bay Area – Battery Management System Development – Internship (6 months/Ongoing)**
- Complete in-house BMS development for UPS application of Natron Energy's sodium-ion batteries.
- PCB hardware design and robust firmware development using SPI communication protocol.
- Battery control and state estimation algorithm development.
- Experience working in a fast-paced start up environment, on high power energy storage technology.

Summer 2016   **Imperial College London – Intelligent Hybrid Vehicle Powertrain Control – Undergraduate Research (2 months)**
- Artificial Neural Network (ANN) development for future vehicle velocity estimation, used in powertrain control system. Supervised by Dr. Simos Evangelou, in cooperation with TVS Motors Company.
- Comparative study of various ANN training methods.
- MATLAB script development to simulate continuous time ANN operation onboard a vehicle.

Summer 2015   **ST Microelectronics Singapore – Device Engineering – Internship (3 months)**
- Established training material for manual testing of wafer quality parameters.
- Worked on production site, alternating between Lab, Fab and office, alongside Bipolar team.

TECHNICAL/ADDITIONAL SKILLS

IT: *Programming Language:* Conversant with C/C++, Python, Prolog, Verilog HDL, CSS, HTML and ARM Assembler + frequent user of Matlab + experience using MySQL and PHP; *Operating systems & Editing:* Competent in use of Linux and MS Windows + LaTeX; *Engineering Design Software:* Competent in use of Labview, Matlab & Simulink, Altera Quartus II and Altium.
Languages:
- Bilingual in English and French.
- Conversational in Mandarin having studied it for 9 years and undertaken intensive Mandarin course at *Beijing Language and Culture University,* 2011.

INTERESTS AND ACHIEVEMENT

- Cultural awareness: French and American citizenship, have lived in countries in Europe, Asia and America.
- Member of Imperial College's Handball team playing in the inter-university league.
- Took part in the Singapore Model United Nations in 2012 and 2013 to debate on the world's environmental issues.
- Volunteered in a charity expedition in 2011 in NingXia province, China**,** to provide educational supplies to the region's primary schools.