

# Clément FUJI TSANG

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## OBJECTIVES

Looking for challenging working opportunities in Embedded Systems / Image Processing / Firmwares & drivers

## RELEVANT EXPERIENCE

### Institut of mechanical sports (student association)

2012 – present

#### Project manager

- Designed the hardware and software of the secondary robot for the Robotics French Cup 2015, Finished 54 out of 188 teams with only the secondary robot. Developed an odometric algorithm for the primary and secondary robot.
- Managed a research team on beacon for the use of every projects of the association.
- Headed the communication and sponsorship for highlight the association and find new sponsorship.

### University of Technology of Troyes

Sep 2015 – present

#### Image processing on FPGA - Personal project

- Developed a VHDL based image processing library
- Imported the image processing algorithms (filters, de-noising, edge detection, split & merge, compression...) from the university courses to VHDL with specific optimizations for digital circuits.

### University of Technology of Troyes

Feb 2015 – Jun 2015

#### Algorithm Architecture Adequation – Supervised personal project

- Made a documentary research on mathematical methods applied on digital circuits: arithmetics operators, trigonometrics functions, signal processing, image processing.

### UTT Net Group (student association)

Sep 2014 – December 2014

#### Arcade machine

- Restored an arcade machine with emulation for the UTT student hall.
- Modified the hardware and the drivers to use specifics controller and screen that make it look authentic.
- Built it to suit a daily student use and several tournaments.

## EDUCATION

### University of Technology of Troyes

Jun 2018

#### French engineering degree (Master of science)

Major: Systems, Networks and Telecommunications

Specialization: Mobiles Technologies and Embedded Systems

## RELEVANT COURSEWORK

- Intelligent embedded systems (Project: Applying neural networks to image processing on a neuroFPGA device)
- Systems administration
- Programmable architectures
- Object-oriented Programming (Project: Developing a Card game using Java language)
- Embedded systems (Projects: Implementing System on Chip on FPGA. Developing drivers on Contiki-OS)
- Image and digital signal processing
- Signal processing
- Security of information systems
- C / C++ (Project: Elaborating a matrix calculator)

## SKILLS

Technologic & Scientific	<ul style="list-style-type: none"><li>• VHDL, C, C++ (Qt, Boost, Arduino), Matlab / Scilab, Java / Android, ASM, Node.js, Office, Linux, Git.</li><li>• Mathematics (analyze, linear algebra, probabilities and statistics), embedded systems protocols, neural networks, image Processing, digital and analog signal processing.</li></ul>
Languages	<ul style="list-style-type: none"><li>• French (natif), English (fluent: BULATS C1+ level), Mandarin (Notions)</li></ul>

## INTERESTS

- Badminton, ski
- Foosball (2011 Secretary of Nice association, 2<sup>nd</sup> World Champion Rookie in 2012, 3<sup>rd</sup> World Champion in Semi-Pro in 2013).
- Economics, DIY stuffs, cooking, neurosciences and psychology

## REFERENCE

M. Michel DOUSSOT: Electrical Engineering Professor, Head of “Mobile Technologies and Embedded Systems” specialization department. Work: +33-325-715-63. Email: michel.doussot@utt.fr