

David TOCAVEN

Automatic master's degree student

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French



► Education

- 2015 to present **EEA master's degree,**
Paul Sabatier University, Toulouse.
- 2013–2015 **Electronic, Electronic engineering and automatic Bachelor's degree,**
Paul Sabatier University, Toulouse.
- 2010–2013 **Scientific stream Baccalaureate**
(equivalent to High School diploma),
La Borde Basse High School, Castres.

► Work Experience

- Apr. to Aug. 2018 **Research internship, LAAS-CNRS, Toulouse.**
(5 months) Active diagnostic, hybrid system, RRA, observer, parity space
- 2016–2017 **Internship, LAAS-CNRS, Toulouse.**
(4 weeks) DEVS model, discrete time, discrete events, modelling
- 2016–2017 **Master project, Paul Sabatier University, Toulouse.**
(6 months) Scientific method, automaton, project management, Matlab
- 2016–2017 **Internship, LAPLACE, Toulouse.**
(5 weeks) Optic, digital image processing, thermal science, Matlab, L^AT_EX, Discovering the research world
- 2016 to present **Private lesson, Toulouse.**
Teaching, mathematics, automatic, visualization

► Skills

► Automatic control – discrete and continuous time

- **Modelling** : frequency, state space, linear and non linear, linear multiple input-output, of observer, uncertain, of late system.
- **Analysis** : frequency, Lyapunov theory, performance, linear and non-linear system, uncertain system, robustness, stability of late system.
- **Control** : PID, multiple input-output, robust, Full state feedback, late system

► Automatic control – Discrete events systems

- Automaton,
- Petri network (standard, stochastic, timed),
- $(max, +)$ algebra,
- DEVS models,
- control
- Analysis, simulation, implementation,
- Diagnosers and controllability,
- Language,
- Supervised control,

► Implementation :

- **Computer science** : System modelling (UML, UML2, SysML, embedded systems), object-oriented, parallel (mutual exclusion, synchronisation, thread, multitasking.).
- **Industrial computing** : DSP *notions*, Microcontroller *basics*,
- **Real time** : OSEK/VDX standard, scheduling, RTOS, requirement checking, reactivity.
- **Network** : Internet *basics*, Network Calculus, CAN, AFDX, real time network.

► Software skills :

For automatic **Matlab** : Simulink, OOP, GUI, RTW.
For computer science : **Eclipse**, **Git**, **Doxygen**.
Office software : **T_EXmaker**, **Microsoft office suite**, **free Office suite**.

► Languages :

Matlab good knowledge, **L^AT_EX** good knowledge, **C** good knowledge, **Assembler** notion, **VHDL** good foundation, **ST** and **IL-LIST** notion, **Arduino** good foundation, **Java** basics, **C++** notion.

► Language and communication skills :

- **Langue** : French (mother tongue), English
- **Communication** : oral and written in French and English.
- **Project management** : Gantt, WBS, RACI, Agile.

► Personal interests :



scientific watch



Travels



Do-it-yourself (bike trailer,
electronic, ...)