

Laurie Lugin

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Software developer

Skills

- **Personal skills:**
 - Fast and enthusiastic learner
 - Both analytical and creative thinker
 - People-oriented and cooperative
- **Programming languages:**
 - C, C++, Python, Java, ADA, OCaml, Prolog, unix shell
- **Theory:**
 - Artificial Intelligence: machine learning, knowledge representation, reasoning
 - Formal methods: model-checking, abstract interpretation, temporal logics
- **Languages:**
 - French: mother tongue
 - English: experienced (B2 European level CEFR in 2008)
 - German: some knowledge

Professional experience

Oct 2009 – Dec 2010 Engaged in a PhD about **energy consumption** of wireless networks and more
(15 months) generally embedded systems, supervised by F. Maraninchi and L. Mounier, at Verimag (Grenoble, France).

- *Research and development:* proposed a comparison basis for energy consumption models and an algorithm for it; implemented the algorithm in Python; studied the datasheet of the radio device CC1100 to confirm the performance of my implementation.
- *Talks:* gave many presentations of my Ph.D. work, to 15 to 30-person audiences in English as well as in French.
- *Teaching:* taught 90 hours of tutorials and practical works (algorithmic and programming in C, formal languages).

2008 – 2009 Taught tutorials in Computer Science for 1st- and 2nd-year students having difficulties, alongside my studies (in groups and individual classes).

- Summer 2008 (3 months)* Contributed to a software **model checker** ($\sim 30k$ lines of Java): I implemented a new semantics of μ -calculus and compared its performance (time, precision) w.r.t. the standard semantics, as an Intern at the university of Toronto, Canada.
- Feb 2008* Designed and implemented a **compiler** from a functional language with process parallelism (the *happy language*) to C. Written in Java with 4 other students.
- Summer 2007* Worked for a community of towns at the reception desk.
- May-June 2007* Designed and implemented the **puzzle game** Blokus. Written in Ada with 5 other students.
- Summer 2006* Contributed to **intelligent tutoring system** for surgeons, as an Intern at LIG (Grenoble, France): I designed and implemented a **database** in SQL. I also initiated a web site in XHTML/CSS2.
- Summer 2005* Worked in a papermaking industry, at the transportation service.

Personal projects

- Since Oct 2010* Designed a frogger game on **FPGA**. I conducted a requirement analysis, wrote a prototype in C/SDL, I am using the version control system Git and coding in VHDL.
- Late 2008* Developed an **IRC bot** in Python which makes rhymes and funny remarks interacting with the discussion.
- Summer 2007* Developed of a **snake game** in Python/Pygame.

Education

- 2007 – 2009* *MSc in Computer Science, option Artificial Intelligence and Web*, with high honors – Université Joseph Fourier, Grenoble, France
- 2004 – 2007* *BSc in Computer Science*, with high honors – Université Joseph Fourier, Grenoble, France
- 2004* *Baccalauréat scientifique* (equivalent to High School diploma), with honors – Lycée de la Versoie, Thonon-les-bains, France

Hobbies

- Music, playing the guitar.
- Sports: badminton, via ferrata, ski.
- Juggling: member of the juggling association *Argument Massue*. I conducted initiation workshops.

References provided on request.