




# JEAN CRUYPENYNCK

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## EDUCATION

- 2016-2017      Master “ingénierie des systèmes images et sons”  
Equivalent to two-year Master’s degree specializing in audiovisual engineering  
Université de Valenciennes, France
- 2013-2014      Licence “sciences de l’information, audiovisuel et médias numériques”  
Equivalent to Bachelor’s degree specializing in audiovisual technology  
Université de Valenciennes, France
- 2011-2013      Classes préparatoires MPSI/MP  
Equivalent to intensive foundation course in mathematics and physics  
Lycée Chatelêt, Douai, France
- 2011            Baccalauréat (French secondary school diploma), science major  
Lycée Saint-Jean, Douai, France
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## EXPERIENCE & PROJECTS

- 2017            Internship (6 months), *Flux::Sound and Picture Development*
- Supporting the development of an application dedicated to multichannel audio mixing
  - Researching and developing hybrid FIR/IIR digital filters
  - Transitioning from an internal build system to *CMake*
- Orléans, France
- 2016-2017      Adaptive quantization for the HEVC x265 encoder (using C and C++)
- Adding an adaptive quantization part to the x265 encoder based on JND contours map
  - Creating a real-time HEVC transcoder integrating the adaptive quantization
- Université de Valenciennes, France
- 2015-2016      Internship (1 year), *Dolby Laboratories, Inc*
- Tester in the team responsible for the new *Dolby AC-4* audio codec
  - Maintained and extended over 10 000 fully automated tests (with Python and *py.test*)
  - Developed several internal testing tools in Python
- Wrocław, Poland
- 2015            *Multistereo*, a real-time 5.1 to binaural audio converter written in C, using *PortAudio*, *FFTW*  
and *libsndfile* libraries and Matlab  
Université de Valenciennes, France
- 2014            Laureate *IABM Engineering Student Awards*, to participate to IBC
- Eight students in audiovisual engineering selected in the world
  - Selected based on a presentation about binaural audio
- IBC, Amsterdam
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## SKILLS

Strong knowledge in perception, processing, compression and transmission of generic audio and video signals and of spatial audio especially.

**Programming languages**                      Python, C, C++, Swift  
**Tools**    git, LaTeX, Matlab, FFMpeg, OpenGL, portaudio, Qt  
**Operating systems**                                  macOS, Linux

Fluent in French (native) and English (C1 European level), basic Russian and German.

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## INTERESTS

Music (ten years of violin, four years of guitar), photography, typography and etymology.