

Olivier CRAVE

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SKILLS

Theoretical

Computer graphics, embedded systems, robotics, simulations, automatic speech recognition, text-to-speech technologies, signal processing, video coding

Technical

C, C++, Python, JavaScript, SQL

Preferred tools

vim, Git, gcc, clang, LaTeX

Languages

French - native


English - proficient

Mandarin - basic

Spanish - basic

EDUCATION

Télécom ParisTech (ENST), France

 2005 - 2008

Ph.D. in Information Technology,
Signal Processing

École Normale Supérieure de
Cachan (ENS Cachan), France

 2004 - 2005

M.Sc. in « Mathematics, Vision and
Learning » (MVA), with honors

Université de Technologie de
Compiègne (UTC), France

 2000 - 2004

M.Sc. in Computer Engineering

Siemens Corporate Research, USA

 2003 - 2004 (1 year)

Engineer intern, Medical imaging

National University of Singapore
(NUS), Singapore

 2002 - 2003 (1 year)

Exchange student, School of
Computing

PERSONAL INTERESTS

Cultural tourism, video games,
reading, Web edition, running.

WORK EXPERIENCE

Parrot


 Paris, France

Software Manager / Tech Lead - Drone Simulation

 Since March 2025 (Tech Lead since September 2024)

Lead the design and development of an advanced real-time 3D drone simulator, utilized both internally and by our global client base.

Software Engineer - Drone Simulation

 2015 - 2024

Design and implementation of a drone simulator that directly communicates with the firmware to reproduce the software behavior with simulated captors and actuators. Its components are mostly written in C++ with some parts in C, Python and Bash.

Developed an Unreal Engine plugin to have more visually realistic simulations. Implemented hardware-in-the-loop functionalities to test software running on actual drone hardware.

Made several contributions to the open-source robot simulator Gazebo and its dependencies (support for battery, atmosphere, wind, ...). Developed a dashboard in JavaScript (React) to visualize flight data in real-time.

Software Engineer - Multimedia

 2011 - 2015

Worked on a solution for automatic speech recognition (ASR) and text-to-speech (TTS) in embedded systems. Development of the legacy C library used in several OEM and aftermarket products. Conception and implementation of the new version of the library written in C++ as a service in a custom Android 4.2 environment.

Commissariat à l'Energie Atomique (CEA)

 Saclay, France

Research Engineer

 2009 - 2011

Developed a library aimed at real time computer vision on massively parallel multi-core processors in embedded systems and graphics hardware.


Programs were written using an experimental framework which includes a language (based on C89) that implements dataflow principles to describe an application as a finite state machine.

Applications include multi-view pose estimation of a 3D model and human posture tracking and recognition, and real-time dense reconstruction..

Télécom ParisTech & INRIA

 Rennes, France

Ph.D. Candidate

 2005 - 2008

Performed research in robust video compression of multi-terminal sources. Built several video codecs by combining distributed video coding principles to shift the computational complexity from the encoder to the decoder and multiple description coding principles to provide error resilience.