# **Cedric Honnet**

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#### **ABSTRACT**

With endless enthusiasm about interactivity, new media and the arts, I love to explore innovative technologies... I am profoundly curious and always open for collaborations.

#### **Keywords**

Interhacktivity, Arts, Robotics and Embedded Systems.

#### **ACADEMIC**

#### **Publications**

Papers available online: honnet.eu/#Academic

- AH 2018: HIVE Tracker: a tiny, low-cost, and scalable device for sub-millimetric 3D positioning - Dario R. Quinones, Goncalo Lopes, Danbee Kim, Cedric Honnet, David Moratal, Adam Kampf
- TEI 2018: Designing eTextiles for the Body: Shape, Volume and Motion - Rachel Freire, Paul Strohmeier, Cedric Honnet, Jarrod Knibbe, Sophia Brueckner
- NIME 2017: Designing a Multi-Touch eTextile for Music Performances - Maurin Donneaud, Cedric Honnet, Paul Strohmeier
- MOCO 2017: Digital Oxymorons: From ordinary to expressive objects using tiny wireless IMUs Andreas Schlegel, Cedric Honnet
- MOCO 2017: Music Skin: Fabric Interface for Expressive Music Control - Maurin Donneaud, Cedric Honnet, Paul Strohmeier
- TEI 2017: Second Skin: An Exploration of eTextile Stretch Circuits on the Body - Rachel Freire, Cedric Honnet, Paul Strohmeier
- LM 2016: Developing an Ecosystem for Interactive Electronic Implants Paul Strohmeier, Cedric Honnet, Samppa Von Cyborg
- MOCO 2016: Movement of Things: Exploring Inertial Motion Sensing When Autonomous, Tiny and Wireless -Andreas Schlegel, Cedric Honnet

#### Reviewing

CHI: Conference on Human Factors in Computing Systems

TEI: Tangible Embedded & Embodied Conference

AH: Augmented Human Conference

## **Teaching**

**What?** Internet Of Things, electronics, interaction, music technologies, and startup mentoring.

Where? Various engineering schools/universities, digital art labs, hackerspaces, and incubators/accelerators.

## **EXPERIENCE**

# 2017-20XX: Sorbonne University / CNRS, Paris

HCI Research Engineer - Embedded systems
Situated Analysis of Human-Machine Interactions in Smart
Environments: 3D positioning (HiveTracker) and smart mobile video-projection for headset-less Mixed Reality

## 2016-20XX: Carpe Noctem, International

Research Engineer, Trainer, Mentor

- Consulting about embedded systems, wearables, IOT and manufacturing in China, France, California
- Visiting Researcher at various institutions in Denmark, Singapore, etc. (see Publications section)
- Teaching in engineering schools, hackerspaces, incubators...

# 2014-2016: Tangible Display, USA / France / China

Co-founder - Research & Development Engineer

- -Designed (hardware+software) various interactive systems with RFID, touch screens or motion sensors such as the "Twiz" (Tiny Wireless IMU): a Bluetooth Low Energy powered 9 degree of freedom motion sensor.
- -Tech+Art experimentations such as the BAD project (Body Air Drum / TapMe), a wearable musical controller or the SonArt project, an interactive system offering information and security for the Art Decoratifs museum.

## 2012-2013: Sifteo, USA

Embedded Systems Engineer & InterHacktivist

- Worked on various elements of the firmware and software: user interface (sound, graphics...), battery management, simulator, graphics controller, bootloader reliability, etc.
- Experimental interactive projects: Implemented a gestures recognition system using the MIT-GRT Toolkit, added a MIDI interface to control music software, and developed an audio communication system to send data to smartphones.

# 2010-2011: Sigma Designs - USA

Research & Development Engineer, Trainee

Google's VP8 Video Decoder Porting on Custom Processor:

- Firmware improvement for optimizing memory management and accelerating execution
- Hardware instruction customization for specific purposes such as arithmetic decoding or binary tree decoding

## 2008: Telecom ParisTech EE Research Labs - France

Research & Development Engineer, Trainee Evaluation of combinatorial components reliability using FPGA for massively parallel simulation of fault injection.

# 2007: Brunel University EE Research Labs - UK

Research & Development Engineer, Trainee
Signal Restoration experimentations & Universal Software
Radio Peripheral modules implementations.

#### **EDUCATION**

## 2008-2011: Telecom ParisTech, France

Master of Engineering (Diplome d'ingenieur) - with honors Computer Sciences: Embedded Systems & Robotics, Digital Media, Systems On Chip, Security

Extracurricular: Telecom Robotics, Savate (French boxing)

# 2004-2008: University Pierre & Marie Curie, France

Master of Science 1 (Maitrise) - with honors EECS with emphasis on Digital Electronics Extracurricular: computer science tutoring for disabled students, Jujitsu, Sambo

# 2006-2007: Brunel University, UK

Bachelor of Engineering (Licence) - with honors EECS with emphasis on Digital Signal Processing Extracurricular: Judo, Thai Boxing

#### **LANGUAGES**

• French: ILR Level 5 - Native proficiency

• English: ILR Level 4 - Full professional proficiency

• Spanish: ILR Level 3 - Professional working proficiency

# **DISTINCTIONS, AWARDS...**

- 2016: Mentor in art+tech accelerator (MaDlab Manchester)
- 2015: Selected in Google Soli alpha developer program
- 2014: Won the Bemyapp factory hackathon, SF, CA
- 2009: Besse Foundation laureate
- 2005: Kenpokan France champion 80 Kg category
- 1997: DMC DJ championship (Fr): 8th final 2nd youngest

#### **EXTRA**

#### **Collectives**

- DataPaulette (DataPaulette.org): wearable / textile hackerspace core member
- Noisebridge (Noisebridge.org): hackerspace electronics and tinkering teachings
- Cumbia Rockers Allstars and Kombo Clan Destino (GatosNegrosProd.com): DJ in Cumbia-Fusion groups
- Telecom Robotics (telecom-robotics.org): Robotic competition society

# Residencies

- Singapore 2016: Media Lab Lasalle visiting researcher: see Digital Oxymorons publication.
- Denmark 2015: Copenhagen University, Human-Centred Computing - visiting researcher: body-ui.eu/?page\_id=191
- France 2015: Fructus Animalis art against programmed obsolescence: project.honnet.eu/fructus-animalis-e95c9f
- Singapore 2014: Growell explored wild animals cameratrap, DIY farm robotics...
- Colombia 2012: Plataforma project.honnet.eu/Resbala // project.honnet.eu/Fusion

#### **REFERENCES**

- David Merrill (Sifteo): dMerrill(a)media.mit.edu
- Ali Rizvi (Sigma Designs): aRizvi(a)apple.com
- Alexis Polti: Alexis.Polti(a)TelecomParisTech.fr
- Saeed Vaseghi: Saeed.Vaseghi(a)Brunel.ac.uk