

# Frédéric Dubouchet

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## EDUCATION

### HES-SO // MASTER

MSE IN INFORMATION AND  
COMMUNICATION TECHNOLOGIES  
2013 | Lausanne, CH

Thesis : (6 / 6) - Betatron tune  
measurement with the LHC damper using  
a GPU

### HES-SO // GENEVA - HEPIA

BS IN COMPUTER SCIENCE  
2005 | Geneva, CH

Thesis : (5.5 / 6) - 3D stereoscopy

### MATURITÉ TYPE S

1997 | Geneva, CH

Grad. (74 / 90) - Swiss secondary school  
degree

## LINKS

Github:// [anirul](#)

LinkedIn:// [Frédéric Dubouchet](#)

## COURSEWORK

### GRADUATE

Artificial Intelligence + Practicum  
Cryptography  
Software Security  
Optimizations  
Fourrier and Wavelets  
Web Data Mining  
GPU computing  
Cloud Computing

### UNDERGRADUATE

Digital Signal Processing  
Compilers + Practicum  
Theory of Computation  
Operating Systems  
Databases  
Computer Graphics + Practicum

## SKILLS

### PROGRAMMING

Over 10'000 lines:

C++ • C

Over 1'000 lines:

Java •  $\LaTeX$  • XML/XSD • Assembly

Familiar:

git • make • cmake

iOS • OSX • Linux • FreeBSD

PostgreSQL • BerkeleyDB • sqlite

## EXPERIENCE

### GOOGLE | SOFTWARE ENGINEER

October 2015 - February 2019 | Zurich, CH

- Reviewing process for online automatic purchase (C++/Javascript/Java)
- Version checking system from online automatic purchase (C++)

### IDIAP RESEARCH INSTITUT | SOFTWARE ENGINEER

August 2014 - August 2015 | Martigny, CH

- Robotic and computer vision projects (C++/OpenCL/OpenCV)
- ASR Automatic Speech Recognition (python)

### MOKASTUDIO - EPFL | SENIOR SOFTWARE ENGINEER

February 2014 - July 2014 | Lausanne, CH

- CTI project for a 3D animation and inverse kinematic application (C++)
- Writing a full forward scene graph (C++)

### CERN | SOFTWARE ENGINEER

May 2006 - December 2013 | Geneva, CH

- Software project leader for the Linac4 RF control system (C++)
- LHC RF Beam control: architecture, coordination, implementation (C++)
- LHC/ADT damper: architecture, coordination, implementation (C++/OpenCL)
- LHC conditioning for the cavities, implementation (C++/Labview)

### NAGRAVISION - KUDELSKI | SOFTWARE DEVELOPER

2001 - 2002 | Lausanne, CH

- Content management and encryptions for digital television (C++)
- Porting the software from Win32 to Linux and TRU64 UNIX (C/C++)

### LYSIS SA | SOFTWARE DEVELOPER

2000 - 2001 | Lausanne, CH

- Content management and for digital television (C++)
- Multiplexer driver for digital television (C)

### ELEAF SARL | FOUNDER, SOFTWARE DEVELOPER

2000 - 2001 | Geneva, CH

- COM objects for Web/ASP FTP, POP3, IMAP interfaces (C++)
- Multimedia Java Applets (Java)

## RESEARCH

### CERN | HEAD UNDERGRAD RESEARCH

July 2013 - December 2013 | Geneva, CH

Worked on **Betatron tune measurement with the LHC damper using a GPU** with **Prof. Paul Albuquerque** and **Dr. Wolfgang Höfle** during my master thesis. It was presented at the **IBIC 2013** conference in Oxford, UK.

## AWARDS AND PROJECTS

2002	<b>El Loco Megabus</b>	game	1 <sup>st</sup> at Mekka and symposium
2005	<b>panoptriktikum</b>	intro 4k	2 <sup>nd</sup> at Breakpoint
2009	<b>miniDHT</b>	network	Distributed Hash Table (P2P)
2010	<b>Biolite Reloaded</b>	game	1 <sup>st</sup> at Buenzli
2012	<b>MOLA Parser</b>	research	Parsing of NASA Mars Orbital Laser Altimetry