# Benjamin Sarti

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Address: 88 Kailash Hills (2d floor), East of Kailash - 110065 New Delhi, India

# **Objective**

French Electrical and General Engineer **holding a Working Holiday Visa for New Zealand** and looking for a full-time job in software development.

## Experience

Famoco New Delhi, India

#### **IT Support Engineer**

Jun. 2016 – Present

- Helping our clients to integrate their Android applications on NFC readers;
- Developed Android applications to interact with Famoco devices (NFC, connectivity, notifications, ...) for technical support and presales.

CPQD Campinas, Brazil

# **R&D** Engineer

Aug. 2014 – May 2016

- *Optical amplifiers:* Simulations with MATLAB and OptiSystem to optimize EDF and Raman amplifiers performance. Laboratory automation with LabVIEW and Matlab for optical characterizations. Integration tests (hardware + firmware) using command-line user interfaces.
- *Integrated Tunable Laser Assembly:* built a laboratory setup for automated optical characterization using Python and C.
- *Packaging for integrated photonics:* automated step motors using Python for free space alignment of polarization multiplexers.

Intern *Jul.* 2013 – *Aug.* 2014

*Optical networks:* implemented dynamic channels equalization algorithms in C++ on CPqD's testbed. Controlled a cascade of optical nodes using multithreading.

Institut Fresnel Marseille, France

**Intern** Jun. 2012 – Jul. 2012

Optimized the optical filtering of plasmonic structures using MATLAB.

#### **Education**

### Universidade Estadual de Campinas

CAMPINAS, BRAZIL

#### Master of Electrical Engineering

*Jul.* 2014 – Dec. 2015

Nonlinear programming, Information theory, Optical links and Probability theory. *Dissertation title:* "Field Calibration Procedure for Enhanced Automatic Gain Control of Distributed Counter-Propagating Raman Amplifiers."

#### École Centrale Marseille

Marseille, France

#### Engineer's Degree (French *Diplôme d'Ingénieur*)

Sept. 2010 - Nov. 2014

Multidisciplinary formation in sciences, engineering and social sciences.

#### Universidade Estadual de Campinas

CAMPINAS, BRAZIL

## **Bachelor of Electrical Engineering**

Jul. 2012 – Jul. 2014

Telecommunications, Electronics, Control Engineering and Power Engineering. **Embedded systems**: Programmed micro-controllers using Process Expert and Code Warrior. Built an digital-to-analog converter using a R–2R ladder and a Raspberry Pi.

# Benjamin Sarti

#### **Skills**

**Programming Languages:** Python, MATLAB, LabVIEW, Java, XML, C and C++.

**Operating Systems:** Linux, Windows and Android.

Others: OptiSystem, LATEX, Git, Jira, TestLink, Zoho, MySQL, Confluence....

Natural languages: Fluent in English, French and Portuguese. Intermediate in Spanish.

## **Publications**

- J. Januario, M. G. Alabarce, **B. Sarti**, N. G. Gonzalez, and J. R. F. Oliveira, "Experimental demonstration of overshoot suppression for cascaded WSS-based ROADMs," in *Optical Fiber Communication Conference*, Los Angeles, Optical Society of America, pp. Tu3H-5., 2015.
- **B. Sarti**, M. G. Alabarce, Benoît C. M. Roulle, Israel J. G. Cassimiro, Uiara C. Moura, J. R. F. Oliveira and Max H. M. Costa, "Field calibration procedure for enhanced automatic gain control of distributed Raman amplifiers," in 2015 SBMO/IEEE MTT-S International Microwave and Optoelectronics Conference, Porto de Galinhas, 2015.
- Y. Fei, A. Fumagalli, M. G. Alabarce, **B. Sarti**, U. C. Moura, N. G. Gonzalez, and J. R. F. Oliveira, "Estimating EDFA output power with an efficient numerical modeling framework," in *International Conference on Communications*, London, IEEE, pp. 5222-5227, 2015.
- **B. Sarti**, J. R. F. Oliveira, M. G. Alabarce, Uiara C. Moura, "Processo de calibração em campo dos amplificadores Raman distribuídos contra-propagantes para operação no modo de controle automático de ganho," INPE Brazil, patent application number BR 10 2015 011437-0, filed on May 2015.

# Other competences and interests

**Tennis competitions:** best French ranking: 15.

**Music:** 10 years of musical theory formation at Amnéville City music academy with validation of the 3 first cycles. Has been playing the trumpet for 7 years and was a member of several orchestras.

Others: fitness training, Japanese animations and board games.