

# Benjamin Sarti

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Address: will arrive in Christchurch on June 21st 2017

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## Objective

French Electrical and General Engineer **holding a Working Holiday Visa for New Zealand** and looking for a job in research and development, automation, systems or test engineering.  
**Industries of interest:** telecommunications, software, energy, electronics, automotive, aerospace.

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## Experience

### Famoco

NEW DELHI, INDIA

#### IT Support Engineer

June 2016 – June 2017

- 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 characterizations and tests using Python and C.
- **Packaging for integrated photonics:** automated DC motors and piezoelectric transducers 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.

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## 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 (Mathematics, Physics); in engineering (Solid and Fluid Mechanics, Heat transfer, Chemistry, Electronics, ...) and in social sciences (Management, Economics, foreign languages,...).

Telecommunications, Electronics, Control Engineering and Power Engineering.

**Embedded systems projects:**

- Programmed micro-controllers with Process Expert and Code Warrior. Controlled physical systems using GPIO pins and interruptions.
- Built an digital-to-analog converter using a R–2R ladder and a Raspberry Pi.

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## Skills

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

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

**Others:** OptiSystem, L<sup>A</sup>T<sub>E</sub>X, Git, Jira, TestLink, Zoho, MySQL, Confluence, EAGLE, Inventor.

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

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## 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.
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## 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.