

Benjamin Sarti

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Address: 76 D Picton Avenue, Riccarton, Christchurch 8011, New Zealand

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.

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.

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.

Skills

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

Operating Systems: Linux, Windows and Android.

Others: OptiSystem, L^AT_EX, Git, Jira, TestLink, Zoho, MySQL, Confluence, EAGLE, Inventor.

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.
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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.