Victor Evangelista | Ph.D student

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Currently pursuing a Ph.D. degree at École de Technologie Superieure at Montreal focusing on radio resources management for 5G networks (focus on non-orthogonal multiple access). I have a solid track on research positions since my undergraduate years, which show that I am equipped to work on complex problems and make significant contributions. I am looking for an intern position where I can put the problem-solving skills I developed on the academic environment to solve industry challenges.

Previous Employment

- **École de Technologie Superieure** — **Montreal**
  Ph.D. Research Assistant, QC — *August 2016–Currently*

  Modeling and optimization of non-orthogonal multiple access (NOMA) techniques for 5G networks. More specifically, my work focus on user scheduling, channel allocation and power optimization in NOMA heterogeneous networks.

- **Universidade Federal de Pernambuco** — **Recife**
  Graduate Research Assistant, Brazil — *July 2015–July 2016*

  I worked on a project, on the cryptography laboratory, where I designed a physical layer authentication (PLA) system based on chaotic signatures. I proposed a framework to evaluate the chaotic sequence from a information-theoretic perspective, and derived a lower bound on the security performance of the system with respect to impersonation, substitution and replay attacks. State-of-the-art PLA rely on low SNR signatures, while the proposed system has a theoretical security lower bound independent of noise.

- **Universidade Federal de Pernambuco** — **Recife**
  Undergraduate Research Assistant, Brazil — *Aug 2014–July 2015*

  I worked on the cryptography laboratory designing a chaotic pseudo-random sequence generator and post-processing techniques for security applications. The proposed generator circuit has a significantly smaller footprint than other state-of-the-art chaotic pseudo random sequence generators. The sequences generated by the simulated circuit passed in all NIST tests for pseudo random sequences.

- **École de Technologie Supérieure** — **Montreal**
  Mitacs Globalink Research Assistant, QC — *May 2014–July 2014*

  Design of a feedback envelope power amplifier to operate on microwave frequencies using CMOS technology.

- **Areva Renewables** — **Recife**
  Intern, Brazil — *Aug 2013–Mar 2014*

  I was an intern on the automation department. My main duties were documentation of network topology and PLC logic, technical support to the field engineers and dealing with equipment suppliers. In one particular project, I was able to identify the improper placement of a costly flow meter on a cooling pipeline, helping the company avoid further losses.

Education

Academic Qualifications

- **École de Technologie Supérieure** — **Montreal, QC**
  Ph.D.:, Electrical Engineering — *2016–present*
  GPA: 4.3/4.3
  Relevant Coursework: Optimization and Probability and Random Signals 2
- **Universidade Federal de Pernambuco** — **Recife, Brazil**
  M.Sc:, Electrical Engineering — *2015–2016*
  GPA: 4/4
  Relevant Coursework: Wireless Communications, Digital Communications, Information Theory, Error Correcting Codes
- **University of Minnesota** — **Minneapolis, MN**
  Science Without Borders Exchange Student, Electrical Engineering — *2010–2015*
  GPA: 3.056/4
- **Universidade Federal de Pernambuco** — **Recife, Brazil**
  B.Sc:, Electrical Engineering — *2010–2015*
  GPA: 8.14/10

Technical and Personal skills

- **Programming:** C, C++, Python and Matlab. Knowledge of data structures and algorithms. Machine learning/deep learning frameworks: sklearn and Tensorflow.
- **Telecommunications:** Physical layer security, radio resource management, multiple access techniques (OFDMA, CDMA, NOMA, SCMA), 3G (WCDMA and UMTS), 4G (LTE, LTE-Advanced), multicarrier modulation (OFDM), multi antenna systems (MIMO), channel modeling.
- **Mathematical Programming:** Integer and combinatoric optimization, linear and nonlinear optimization, non-convex optimization, mixed integer nonlinear optimization, game theory.
- **Statistics:** Data analysis, supervised and unsupervised learning, stochastic geometry, dimensionality reduction, deep neural networks (CNN, RNN, LSTM), random signal processing.
- **Other:** Accomplished self learner, always looking forward to learn new skills, work well under pressure and tight deadlines, great team player.

Publications (In English)

- Evangelista, João VC; Artiles, José AP; Chaves, Daniel PB; and Pimentel, Cecilio. *"Emitter-coupled pair chaotic generator circuit."* AEU-International Journal of Electronics and Communications 77 (2017): 112-117.
- Souza, Carlos; Evangelista, João VC; Chaves, Daniel PB; and Pimentel, Cecilio. *"Spectral analysis of a chaotic map based on the hyperbolic tangent function."* Journal of Communication and Information Systems 31, no. 1 (2016).
- Sattar, Zeeshan; Evangelista, Joao VC; Kaddoum, Georges; and Batani, Naım. *"Analysis of the Cell Association for Decoupled Wireless Access in a Two Tier Network."* Accepted at 2017 IEEE PIMRC Conference, Montreal, QC