ANDRÉ GOMES

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SHORT BIO

I am a Telecommunications/Computer Engineer (BS/MS/PhD-in progress) with professional experience in Technical Support Engineering (tiers 1-3) and Computer Networks Management. Over the years, I have developed strong proficiency in Python, Linux (mostly Debian/Ubuntu), Bash Scripting, Computer/Wireless Networks, and lately endeavoured in Machine Learning and Data Science. Among some relevant soft-skills, I list fast learner, team worker, and a good communicator.

TECHNICAL FEATURED SKILLS

- Python, Bash scripting, C/C++, Matlab/Octave.
- Machine and Reinforcement Learning.
- Linux Debian/Ubuntu, Git.
- Computer/Wireless Networks, and Software Defined Radio (Gnu Radio).

EXPERIENCE

CONNECT Centre – Dublin, Ireland (in-progress)   *Mar 2019 – Present*
PhD researcher
A team member of the project SATORI: Smart Networking in the Era of AI, `http://satori-project.net`. **Technical skills:** Python, Machine Learning frameworks (TensorFlow, Keras, PyTorch).

Winet Research Lab. – Belo Horizonte, Brazil (2yrs)   *Feb 2017 – Jan 2019*
Master's researcher
Member of the Winet research group. Main research areas: applications of machine learning to wireless networks, self-organizing and cognitive networks. **Technical skills:** Python, C++, Machine/Reinforcement Learning, Gnu Radio. **Soft skills:** Technical and academic writing.

Kiffer TI – Belo Horizonte, Brazil (1.4yrs)   *Aug 2017 – Nov 2018*
Technical support analyst
On-site and on-demand IT technical support to Wabtec Corporation – Belo Horizonte, Brazil. **Technical skills:** Network troubleshooting and infrastructure, application support (Windows, TOTVS). **Soft skills:** On-site customer support environment experience.

Bwtech/NetChart – Belo Horizonte, Brazil (1.7yrs)   *Nov 2015 – May 2017*
Coordinator, Tier-3 support   *Apr 2017 – May 2017*
Engineer, Tier-2 support   *Sep 2016 – Mar 2017*
Intern, Tier-1 support   *Nov 2015 – Aug 2016*
As a member of the support engineering team, my main daily activities consisted of: collecting and processing data from multi-vendor mobile network operators (Nokia-, Huawei-, Ericsson-, etc. OSS – Operations Support System); assisting NetChart users; troubleshooting lack of data and OSS-related problems; and lastly, coordinating the activities of the support engineering team. **Technical skills:** Linux, Bash scripting, MySQL, .NET. **Soft skills:** Teamwork, Customer support environment experience.

Somers Entertainment – Adelaide, Australia (4mos)   *Aug 2014 – Nov 2014*
Electronics Technician
Part-time job as an electronics technician, repairing sound and lighting equipment. **Technical skills:** Soldering, Electronics. **Soft skills:** English communication.

EDUCATION

Trinity College Dublin – Dublin, Ireland *Mar 2019 – Present*
PhD in Electronic and Electrical Engineering
Advisor: Prof. Luiz A. DaSilva

The Federal University of Minas Gerais – Belo Horizonte, Brazil *Feb 2017 – Jan 2019*
Master's degree (with thesis) in Computer Science
Master's thesis: Troca automática de protocolos MAC empregando aprendizado por reforço (*i.e., Automatic MAC protocol selection in wireless networks based on reinforcement learning*). **GPA:** 4.64 out of 5.0
Advisor: Prof. Daniel F. Macedo

The University of Adelaide – Adelaide, Australia *Jan 2014 – Jan 2015*
Exchange program in Engineering
GPA: 5.8 out of 7.0

The Federal University of São João del-Rei – Ouro Branco, Brazil *Feb 2011 – Dec 2016*
Bachelor's degree in Telecommunications Engineering
GPA: 8.7 out of 10.0

FURTHER COURSES AND CERTIFICATES

- CONNECT Centre Summer School. *Machine Learning for Communication Systems and Networks*. Organised by Trinity College Dublin. *Sep 2-4 2019*
- IEEE Summer School of Information Engineering (SSIE). *AI and Machine Learning for ICT Applications*. Organised by the University of Padova. *Jul 8-12 2019*
- *Getting Started with Go*. Coursera. Licence QDVUL2PFJDDJ.
- *Improving Deep Neural Networks: Hyperparameter tuning, Regularization and Optimization*. Coursera. License 6Y8ZCRAD8QL2.
- *Neural Networks and Deep Learning*. Coursera. License FEV6C7P77SWF.
- *Machine Learning*. Coursera. License 4MGHZXQTNYBG.
- *Introduction to Data Science in Python*. Coursera. License 7QQPC83QL6W9.

AWARDS

- Master's degree scholarship. Funding granted by CAPES. Host university: The Federal University of Minas Gerais. *Feb 2017 – Jan 2019*
- International student scholarship from the Brazilian educational program Science Without Borders. Funding granted by CNPq. Host university: The University of Adelaide. *Jan 2014 – Jan 2015*

LANGUAGES

Portuguese: native; **English:** proficient; **Spanish:** elementary.

PUBLICATIONS

[1] **Gomes, A.**, Kibiłda, J., Farhang, A., Farrell, R., and DaSilva, L. A. (2020). *Network sharing for reliable networks: a data-driven study*. In IEEE International Conference on Communications (ICC).

[2] **Gomes, A.**, Macedo, D. F., and Vieira, L. F. M. (2019). *Automatic MAC protocol selection in wireless networks based on reinforcement learning*. In ELSEVIER Journal of Computer Communications. Available at `https://www.sciencedirect.com/science/article/pii/S0140366419311284`.

[3] **Gonçalves, A. V. G. S.**, Macedo, D. F., and Vieira, L. F. M. (2018). *FS-MAC+: Troca flexível do protocolo de acesso ao meio em redes sem fio empregando aprendizado de máquina*. In XXXVI Brazilian Symposium on Computer Networks and Distributed Systems (SBRC). Available at `https://goo.gl/fPAUy4`.

[4] **Gonçalves, A. V. G. S.** and Kakitani, M. T. (2016). *Proposta de algoritmo para preenchimento automtico de tabelas de vizinhana em ambientes LTE*. Available at `https://goo.gl/f9trF8`.

TALKS & PRESENTATIONS

Short course given at the IFMG Betim. **Gonçalves, A. V. G. S.**, Macedo, D. F. and Silva, E. B. *Programmable Radios using GNU Radio*. Duration: 3h. Date: 26/10/2017.

Conference article presentation. **Gonçalves, A. V. G. S.**, Macedo, D. F. and Vieira, L. F. M. (2018). *FS-MAC+: Troca flexível do protocolo de acesso ao meio em redes sem fio empregando aprendizado de máquina.* In XXXVI Brazilian Symposium on Computer Networks and Distributed Systems (SBRC).