Dr. Eng. J. Agustin BARRACHINA

Machine Learning — Software Developer — Signal Processing

🏛 IEEE Member (93156321) & IEEE GRSS Social Media Ambassador (SMA)

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Experience

SAFRAN **February 2023 - present**
Machine Learning Engineer *Paris, France*
- Increased time series filtering accuracy from 70% to 90% using ML-based methods
- Developed ML-Pipeline for keeping track of datasets and ML models using best practices and ML Design Patterns
- Migrated Python Signal Processing algorithms to the C++ product code that was sold to the client

Python C++ TensorFlow Pandas Docker CI/CD

ONERA & École CentraleSupelec & DGA **June 2019 - December 2022**
Ph.D. on Machine Learning *Paris, France*

⚪ /NEGU93/cvnn; 🌐 negu93.github.io/cvnn_vs_rvnn_polsar_applications
- **9+ Publications** at prestigious Springer and IEEE conferences and journals
- Open-source repository with **105k+ PIP downloads**, 100+ GitHub stars
- Ranked **top 15% reviewer score** on IEEE MLSP 2021 publication
- 3MT IEEE GRSS Excellence in Technical Communication **Student Prize Award** Finalist
- ☺Reddit r/MachineLearning WAYR (What are you reading) **Most upvoted paper** week 116

Python TensorFlow

CNRS **September 2018 - March 2019**
Electronics Internship *Grenoble, France*

⚪ /NEGU93/CYUSB3KIT-003_with_SP605_xilinx
- Optimized the data acquisition sample rate for Mimac-FastN by upgrading the electronics from USB 2 to USB 3

C/C++ VHDL ROOT

Cisco Systems **November 2017 - April 2018**
Software System Engineer Intern *Buenos Aires, Argentina*
- Service Provider for AMX (Claro). CCNA SPNGN1 certification

INVAP — École des Ponts **Jan - Feb 2016 — 2015**
Summer internship *Bariloche, Argentina — Paris, France*

Education

Instituto Tecnológico de Buenos Aires **March 2012 - July 2018**
Master in Electronical Engineering with specialization in Signal Processing *Buenos Aires, Argentina*
- Second highest GPA score among 26 students (95th percentile)

École Polytechnique (l'X) **September 2016 - March 2017**
International Exchange Program *Paris, France*
- Academic performance: 16.84 / 20

Competitions

Safran Data Challenge (2023): 1 / 16 (100th percentile)
J.P.Morgan Chase & Co Hackathon (2019): 3 / 20 (90th percentile)
IEEEXtreme 24-hour Programming Competition: 15 edition (2021): 313 / 5561 (94th percentile); 11 edition (2017): 391 / 3350 (88th percentile); 9 edition (2015): 275 / 2035 (86th percentile); 8 edition (2014): 536 / 1853 (71th percentile).
Note: editions 11 and 15 I participated alone (normally is in teams of 3)
ITBA electronics exhibition: 3 times awarded as best project by several companies including Schneider Electric
IEEEXtreme Practice ITBA (2017): 2 / 15 (93th percentile)
Argentinian Math Olympiad (OMA): Invictus. Several times participant

Technical Skills

Languages: Spanish (native), English (Cambridge C1 CAE & TOIEC 940/990), French (DELF A2 & TFC B2)
Programming Languages: Python (Tensorflow, Pandas), C/C++, Java, Matlab, Web (Angular, JS, TS, HTML, CSS)
Technologies/Frameworks: Linux, Git, Docker, reStructuredText, K8s