Dr. Eng. BARRACHINA, J. Agustin

Machine Learning | Software Developer | Signal Processing

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I am a Ph.D. Engineer looking for a job as a **Software Developer** in the fields of **AI / Machine Learning.**

Preferably based in Paris/Ile-de-France or remote. I value teamwork and related strategies such as Agile methodology.

EXPERIENCE

PhD Thesis

Complex-Valued Neural Networks for image applications

📅 Oct 2019 – Nov 2022   📍 Paris, France

7+ publications.

Open-source repository with 460+ PIP and 200+ anaconda downloads, and 65+ GitHub stars between other metrics.

`Python` `Tensorflow`

Fast Electronics Internship

📅 Sep 2018 – Mar 2019   📍 Grenoble, France

Optimized the data acquisition sample rate for Mimac-FastN

github.com/NEGU93/CYUSB3KIT-003_with_SP605_xilinx

`C/C++` `VHDL`

Software System Engineer Intern

📅 Nov 2017 – Apr 2018   📍 Buenos Aires, Argentina

Service Provider for AMX (Claro)

`CCNA`

Summer Internships

📅 Jan 2016 – Feb 2016   📅 Jan 2015 – Feb 2015

📍 Bariloche, Argentina   📍 Paris, France
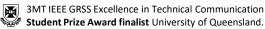
École des Ponts ParisTech

REPOSITORY 💻 github.com/NEGU93/cvnn

⭐ 67 stars 👁 6 watching 🍴 16 forks ⓘ 30 Reported Issues

Toolbox for implementing Complex-Valued Neural Networks using Tensorflow as backend. Imported in 2 repositories within GitHub and 50 views per day on average (Sep 2022); 200+ anaconda, 460+ PyPI and 24 Zenodo downloads; Installable with PIP and Anaconda; Documented with ReStrucutred Text (online in Read the Docs); Tested with pyTest; Subject of 31 personal emails.

PUBLICATIONS

7 Publications (9 counting submission not yet accepted): 1 Journal at Springer, 4 International IEEE conferences (ICASP, IGARSS, MLSP, ICIP), 1 national conferences (GRETSI), 1 Workshop (SONDRA). 2 submitted papers to Journals. 5 citations excluding my own references.

🎓 3MT IEEE GRSS Excellence in Technical Communication
Student Prize Award finalist University of Queensland.

📱 Reddit r/MachineLearning – WAYR (What are you reading).
Most upvoted paper week 116.

🏆 Ranked **top 15% reviewer score** on
IEEE MLSP 2021 publication.

TEACHINGS

Tenured Professor. Digital Signal Processing.   `C/C++` `ASM`

📅 Oct – Dec 2019, 2020 & 2022 📍 Ecole Polytech Paris-Sud

Teaching assistant. Introduction to Python   Neural Networks

📅 Sep 2019 – Oct 2019 📍 IUT Orsay   📅 Jul 2017 – Dec 2017 📍 ITBA

`Python`   `Python` `Tensorflow`

EDUCATION

ITBA

Master in Electronical Engineering
Focus on Signal Processing

📅 Mar 2012 – Jul 2018

Academic performance: 7.14 / 10 (top 2 over 26)

Ranking   2 / 26 (top 95%)

École Polytechnique

International Exchange Program

📅 Sep 2016 – Mar 2017

Academic performance: 16.84 / 20

COMPETITIONS

🏆 **Hackathon** JPMORGAN CHASE & CO.
3rd prize over 20 participants
- 2019   3 / 20 (top 90%)
Note: Only team on top 3 without a software eng

🏆 **IEEEXtreme 24-Hour Programming Competition**

Edition	Performance
- 2021	313 / 5561 (top 94%)
- 2017	391 / 3350 (top 88%)
- 2015	275 / 2035 (top 86%)
- 2014	536 / 1853 (top 71%)

Note: editions 11.0 and 15.0 I participated alone (normally it is in teams of 3)

🏆 **ITBA electronics exhibition**
3 times participant awarded as best project by several companies including Schneider Electric

🏆 **IEEEXtreme Practice IEEE – ITBA**
- 2017   2 / 15 (top 93%)

🏆 Invictus in the **Argentinian Math Olympiad (OMA).**
Several times participant.

PROGRAMMING

Java	github.com/NEGU93/Compilation
Python	github.com/NEGU93/LipSync; github.com/NEGU93/cvnn
Matlab	github.com/NEGU93/Steganography
C/C++	github.com/NEGU93/Parallel-Image-Filtering
VHDL	
Asm	
Web	github.com/NEGU93/negu93.github.io

(JavaScript, TypeScript, Angular, HTML, CSS)

LANGUAGES

🇪🇸 Spanish   Native

🇬🇧 English   Cambridge CAE C1 | TOIEC 940 / 990

🇫🇷 French   DELF A2 | TCF B2