



Ph.D. 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 in Machine Learning

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 Mimax-FastN

github.com/NEGU93/CYUSB3KIT-003_with_SP605_xilinx

C/C++

VHDL

PostgreSQL



Software System Engineer Intern

Nov 2017 – Apr 2018

Buenos Aires, Argentina

Service Provider for AMX (Claro)

CCNA



Summer Internships

Jan 2016 – Feb 2016



Bariloche, Argentina

Tecnología argentina de Río Negro para el mundo

Jan 2015 – Feb 2015

Paris, France



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 ReStructred 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 + 2 submitted papers to Journals, 4 International IEEE conferences (ICASP, IGARSS, MLSP, ICIP), 1 national conferences (GRETSI), 1 Workshop (SONDRA). 24 citations.



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.

Oct – Dec 2019, 2020 & 2022 École Polytech Paris-Sud

Teaching assistant. Introduction to Python

Sep 2019 – Oct 2019

IUT Orsay

Python

C/C++

ASM

Neural Networks

Jul 2017 – Dec 2017

ITBA

Python

Tensorflow

EDUCATION

ITBA

Master in 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

IEEEExtreme 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

IEEEExtreme 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/ForbiddenDesert

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