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SKILLS SUMMARY

- Programming Languages
 - Python, MATLAB, C++, C
- Machine Learning and Deep Learning
 - Tensorflow, PyTorch, Scikit Learn
- Tools
 - Docker, Git, GitHub, GNU Radio, LaTeX

LANGUAGES

- Portuguese, mother tongue.
- English, advanced.

VINICIUS MESQUITA DE PINHO

ELECTRONIC AND COMPUTER ENGINEER

PERSONAL PROFILE

- Vinicius Mesquita de Pinho received his B.Sc. degree in Electronics and Computing Engineering from the Federal University of Rio de Janeiro (UFRJ), Brazil, in 2019. He is an M.Sc. student in the Electrical Engineering Program - COPPE/UFRJ. Since 2015, he has been working at the Laboratory of Signals, Multimedia, and Telecommunications (SMT).

EDUCATIONAL HISTORY

Federal University of Rio de Janeiro

M.Sc. Electrical Engineering | Mar 2019 - Feb 2021

- Master Thesis: "Vision-Aided Radio: User Identity Match in Radio and Video Domains Using Machine Learning"

B.Sc. Electronic and Computer Eng. | Feb 2014 - Feb 2019

- Undergraduate Thesis: "On Equalization Performance in Underwater Acoustic Communication System"

WORK EXPERIENCE

Research Intern

Nokia Bell Labs France | Feb 2020 - July 2020

- Six-month internship about leveraging the power of machine learning for computer vision to the optimization of radio networks for future communication generations.
- Journal paper "Vision-Aided Radio: User Identity Match in Radio and Video Domains Using Machine Learning" published in IEEE Access special edition on Beyond 5G Communications.
- A patent application with the methodology developed was filed on the Finnish Patent and Registration Office on Aug 20.

Research Engineer

SMT/COPPE/UFRJ and Petrobras | Aug 2018 - Mar 2020

- Worked as a research engineer exploring solutions using big data and machine learning, successfully identifying and classifying problems in signals acquired during oil well drilling processes.
- Leadership position in the group composed of twelve students, delegating tasks, and managing deliveries.

WORK EXPERIENCE (CONTINUATION)

Junior Researcher

SMT/UFRJ | Feb 2015 - Jan 2019

- Scholarship funded by Coordination for the Improvement of Higher Education Personnel (CAPES), renewed three consecutive years after proving the researcher's merit.
- The 1st year focused on indoor localization. I was responsible for studying and coding algorithms regarding the topic. Two papers were published in the Brazilian Symposium on Telecommunications and Signal Processing (SBTr).
- From 2016 to 2019, my main topic of research was underwater acoustic communications. I was responsible for pre- and post-processing steps in four practical experiments executed in cooperation with the Brazilian Navy. This research led to a paper published on the SBTr 2018 and my undergraduate thesis.

EXTRACURRICULAR ACTIVITIES

Teacher Assistant

Electronics Engineering Dept./UFRJ | Aug 2016 - Dec 2018

- Linear Algebra teacher assistant for five semesters; gaining a solid mathematical background in the area.
- Responsible for organizing weekly meetings with the students and grading all the tests (12 per semester).

Videologger

Olympic Broadcast Services (OBS), Rio Olympics 2016

- As part of the OBS logging staff, I worked as a videlogger for the Rio 2016 Summer Olympics, experiencing an international work environment.
- I was selected to work on the closing ceremony, where only the 10 best out of 90 videologgers were selected.

Volunteer

Blood Donation Awareness Group | Aug 2015 - Mar 2016

- I was a volunteer in a university group where the goal was to raise awareness of the importance of donating blood to the university's hospital.
- I was responsible for the online actions on social media and administrative tasks of the group.

PUBLICATIONS

Journal Articles

- V. M. De Pinho, M. L. R. De Campos, L. U. Garcia and D. Popescu, "Vision-Aided Radio: User Identity Match in Radio and Video Domains Using Machine Learning," in IEEE Access, vol. 8, pp. 209619-209629, 2020, DOI: 10.1109/ACCESS.2020.3038926.

Papers published in conferences

- PINHO, V. M.; POPESCU, D.. "User identification by matching radio 'vision' and computer vision through means of machine learning,". In: IFIP Networking, 2020, Paris. Proceedings of the 2020 IFIP Networking Conference, 2020. v. 1. p. 671-672. ISBN: 978-1-7281-6710-7
- PINHO, V. M.; CHAVES, R. S. ; CAMPOS, M. L. R.. "On Equalization Performance in Underwater Acoustic Communication". In: XXXVI Simpósio Brasileiro de Telecomunicações e Processamento de Sinais, 2018, Campina Grande - PB. ANAIS DO XXXVI SIMPÓSIO BRASILEIRO DE TELECOMUNICAÇÕES, 2018. v. 1. DOI: 10.14209/SBRT.2018.207

PUBLICATIONS (CONTINUATION)

Papers published in conferences (continuation)

- MARINS, M. A.; CHAVES, R. S. ; PINHO, V. M.; CUNHA, R. A. F.; CAMPOS, M. L. R.. "Tackling Fingerprinting Indoor Localization Using the LASSO and the Conjugate Gradient Algorithms". In: XXXIV Simpósio Brasileiro de Telecomunicações e Processamento de Sinais, 2016, Santarém - PA. -, 2016. DOI: 10.14209/sbrt.2016.47
- CUNHA, R. A. F.; PINHO, V. M.; CAMPOS, M. L. R.. "O Método do Gradiente Conjugado Aplicado à Localização em Ambientes Fechados". In: XXXIII Simpósio Brasileiro de Telecomunicações, 2015, Juiz de Fora - MG. XXXIII Simpósio Brasileiro de Telecomunicações, 2015. v. 1. p. 597-598. DOI: 10.14209/sbrt.2015.85

Undergraduate Thesis

- PINHO, V. M. "On Equalization Performance in Underwater Acoustic Communication System". Undergraduate Thesis, Federal University of Rio de Janeiro (UFRJ), Electronics and Computing Engineering Departament (DEL). February, 2019.