

VINICIUS MESQUITA DE PINHO

🏠 5th April 1995

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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). Currently, Vinicius is working as an intern at Nokia Bell Labs France, in a project integrating radio systems and computer vision.

EDUCATION

PhD in Information and Communication Technologies Engineering

Pompeu Fabra University

📅 February 2021 – February 2024 📍 Barcelona, Spain

- Admitted for a PhD position on Wireless Communication and Machine Learning in the Department of Information and Communications Technologies at the Pompeu Fabra University.

Master of Science in Electrical Engineering

Federal University of Rio de Janeiro

📅 March 2019 – December 2020 📍 Rio de Janeiro, Brazil

- Granted a fully funded two-year Master degree course with the Young Talent scholarship by the Coordination for the Improvement of Higher Education Personnel (CAPES).
- Overall average grade on classes: 2.64/3.00.
- *Master Thesis*: **ongoing research** on fusing Computer Vision and Wireless Communications for future radio technologies.

Bachelor in Electronics and Computing Engineering

Federal University of Rio de Janeiro

📅 February 2014 – February 2019 📍 Rio de Janeiro, Brazil

- Overall average grade on classes: 7.4/10.0.
- *Undergraduate Thesis*: *On Equalization Performance in Underwater Acoustic Communication System*. Unanimously approved with grade 10.0/10.0.

EXPERIENCE

Research Intern

Nokia Bell Labs France

📅 February 2020 – July 2020 📍 Paris, France

- The project for this six-month internship is about leveraging the power of machine learning for computer vision to the optimization of radio networks for the sixth generation (6G) of radio technologies.
- Development of novel approach to user-matching system in video stream.
- Demonstration paper for International Federation for Information Processing Networking 2020.
- Patent application submitted with the novel user-matching system developed.

Research Engineer

Petrobras and UFRJ

📅 August 2018 – March 2020 📍 Rio de Janeiro, Brazil

SKILLS

- Programming Languages

Python

MATLAB

C++

C

- Machine Learning and Deep Learning

TensorFlow

PyTorch

Scikit Learn

- Tools

Docker

Git

GitHub

GNU Radio

LaTeX

LANGUAGES

Portuguese

English



PUBLICATIONS

- Patent

– (Submitted...) PINHO, V. M.; POPESCU, D.; UZEDA L.; HOYDIS J. **METHOD FOR IDENTIFYING AND TRACKING THE UE DEVICE THROUGH MACHINE LEARNING AND COMPUTER VISION**. Nokia Bell Labs France, 2020.

- Conference papers

– (Submitted...) PINHO, V. M.; POPESCU, D.. **User identification by matching radio “vision” and computer vision through means of machine learning**. IFIP Networking 2020.

– 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.

– 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**

– PINHO, V. M.; CAMPOS, M. L. R. ; CUNHA, R. A. F.. **O Método do Gradiente Conjugado Aplicado à Localização em Ambientes Fechados**. In: XXXIII Simpósio Brasileiro de Telecomunicações, 2015, Juiz de Fora - MG.

- Worked as a research engineer exploring solutions using big data and machine learning techniques to successfully achieve the goal of identifying and classifying mechanical problems in signals acquired during oil well drilling processes.
- Leadership position in the group composed by twelve students, delegating tasks for each one.

Junior Researcher

SMT/UFRJ

📅 February 2015 – December 2018 📍 Rio de Janeiro, Brazil

- Junior researcher in the SMT Laboratory with scholarship funded by CAPES, renewed three consecutive years after proving the researcher's merit.
- The first year of research focused on indoor localization. I was responsible for studying and coding the algorithms regarding the topic. Two papers were published in the Brazilian Symposium on Telecommunications and Signal Processing.
- For following years the main topic was underwater acoustic communications. I was responsible for data measurements for the research, executed in cooperation with the Brazilian Navy.
- Responsible for coding the software for analysing the data, which led to a paper published in the Brazilian Symposium on Telecommunications and Signal Processing.

EXTRACURRICULAR ACTIVITIES

Volunteer

Blood Donation Awareness Group

📅 Aug 2015–Mar 2016 📍 RJ, Brazil

- Volunteer in a university group where the goal was to raise awareness of the importance in donating blood to the university hospital.
- Responsible for the online actions in the social media.
- Co-responsible for the administrative tasks of the group.

Videologger

Olympic Broadcast Services (OBS) - Rio Olympics 2016

📅 August 2016 📍 Rio de Janeiro, Brazil

- As part of the OBS logging team, worked as videologger for the Rio 2016 Summer Olympics, experiencing an international work environment.
- Selected to work on the closing ceremony, only the 7 best out of 90 videologgers were selected.
- Invited to work on the 2016 Summer Paralympics, only the best 20% videologgers were invited for the job.

Teacher Assistant

Electronics and Computing Department

📅 Aug 2016–Dec 2018 📍 RJ, Brazil

- 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, developing an mature sense of responsibility.