

G. ZUCATELLI, PHD

R&D INDUSTRY

SAMSUNG ELECTRONICS

2021 - Present

TECH LEAD - SPEECH PROCESSING - SIDI R&D INSTITUTE

- Launched lightweight keyword detection KWD and speech enhancement modules adopted worldwide by millions of users.
- Increased 12% accuracy of keyword spotting module while reducing 2% of false acceptance in real non stationary acoustic scenarios.
- Headed 3 dynamic teams of ~5 data scientists, AI/ML developers and engineers and successfully released ML solution currently in global market.
- Authored 4 patents and published 3 papers in acoustic signal processing.

ACADEMIA

LABORATORY OF COMPUTER AND NEURAL SYSTEMS (CISNE)

2022 - Present

POSTDOCTORAL RESEARCHER

- Designed new feature for non stationary acoustic source classification improving 4.2 p.p. accuracy with a single unit increase in input dimension.

LABORATORY OF ACOUSTIC SIGNAL PROCESSING (LASP)

2017 - 2021

RESEARCH ASSISTANT (PHD CANDIDATE)

- Created adaptive enhancement solution for noisy-reverberant speech, attaining over 20% auditory intelligibility boost.
- Published on IEEE Signal Processing Letters and IEEE Sensors Journal.
- Accepted papers on ICASSP and IEEE SSP conferences.

2012 - 2016

RESEARCH ASSISTANT (UNDERGRADUATE)

- Developed the IDEA App for Acoustic Emotion Classification from scratch.

EDUCATION

MILITARY INSTITUTE OF ENGINEERING (IME) ** - Rio de Janeiro - Brazil

2017 - 2021

PHD IN ENGINEERING - SIGNAL PROCESSING | DEEP LEARNING | AI

2013 - 2016

BACHELOR IN ELECTRONIC ENGINEERING

** THE BEST Electric and Electronic Engineering national courses for last two decades based on Brazilian Ministry of Education assessments.

HONORS, AWARDS AND EXTRA EXPERIENCES

2016

- Recipient of the CREA-RJ Award, given annually to the best undergraduate thesis among all graduating electronic engineers in Rio de Janeiro.
- Recipient of the Best Undergraduate Research Award, given at the annually IME Undergraduate Research Meeting to best presented research.

2012 - 2015

- Reservist 2nd Lieutenant Engineer Brazilian Army - Military Engineering Officer Formation Course.

2013 - 2015

- As General Coordinator and Teacher on social program *Ação-IME* achieved over 80% approval rate of minority students to top tier universities.

2006 - 2010

- 1 Silver and 2 Bronze Medals at the Brazilian National Astronomy and Astronautics Olympiad.
- Honored Mention at the Brazilian National Chemistry Olympiad.

SKILLS

Computer

- Python, MATLAB, ShellScript
- TensorFlow, PyTorch, Linux, GIT

Language

- English, Portuguese (Native)
- Brazilian and Italian Citizenship