## Gabriel F P Araujo

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## **Education**

Undergraduate B.Eng. in Mechatronics Engineering, University of Brasilia, Br

## Experience

February Software Developer, LIPIS/LEI (Laboratory of Instrumentation and Processing of Images 2013 – and Signals), University of Brasilia, Brasilia, Brazil.

2014

- February Implementation of an autonomous Antibiotic sensitivity testing algorithm previously designed by LIPIS researchers.
  - Technologies: OpenCV and C++.

July 2014 - Undergraduate Researcher, CIC UnB (Computer Science Department), University of June 2015 Brasilia, Brasilia, Brazil.

- Development of an autonomous driver to the TORCS simulator in order to compete in the Simulated Car Racing Championship, a former GECCO Competition.
- 5th place in the SCRC 2015.
- o Paper describing the pilot development, DOI: 10.1109/SBGames.2015.19

September Teacher, University of Brasilia, Brasilia, Brazil.

• Main teacher at workshop in ROS.

- Knowledge network: Robotics, Python, and ROS.
- January 2017 Teacher Assistant Computational Fundamentals of Robotics, University of Brasilia, - February Brasilia, Brazil.
  - 2017• Elaborate challenges and assignments under the Professor's supervision for Computational Fundamentals of Robotics course during UnB Summer School and further documentation of the achieved
- May 30, 2017 Software Developer Google Summer of Code 2017 participant with GNSS-SDR, - August 21, University of Brasilia, Brasilia, Brazil.
  - 2017 Expansion of the GNSS-SDR software to GLONASS system.
    - Implementation of both Acquisition and Tracking blocks of the GLONASS to GNSS-SDR.
    - o Further details: https://gist.github.com/Gastd/f46a2bd78dcc11984e69eb7cbc49f8a4

April 13, 2019 Intern, LandSense Soluções Tecnológicas, Brasilia, Brazil.

- June 21, Embedded software development.
  - 2019 Design and implementation of a Bluetooth mesh protocol.
    - Main technology: C/C++.

August 2013 - Undergraduate Researcher, LARA (Automation and Robotics Laboratory), University of Present Brasilia, Brasilia, Brazil.

- Implementation of perception system for cooperative robots.
- SDR development for mobile robots localization using multi-constellation GNSS systems.
- Development of a "chat-bot" system for controlling a mobile robot using speech recognition.
- Build an indoor localization system using EKF and ARToolKit tags.
- Implementation of ROS drivers for GPS and IMU sensors.

## Computer skills

Languages C/C++, Python

Frameworks Robot Operating System (ROS), GoogleTest, CMake

Debugging GDB, Valgrind

Applications MatLab, LATEX, SolidWorks, MS Office, Eagle