Gabriel F P Araujo

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github.com/Gastd

Education

Incomplete **B.E. in Mechatronics Engineering**, *University of Brasília*, *Brasília, Brazil.*

Experience

February 2013 – February 2014 **Software Developer**, *LIPIS/LEI (Laboratory of Instrumentation and Processing of Images and Signals)*, University of Brasília, Brasília, Brazil.

- Implemented a solution for automating Antibiogram based on an algorithm developed by the Laboratory.
- Builded in C++ using OpenCV.

July 2014 – June 2015 **Undergraduate Researcher**, *CIC UnB (Computer Science Department)*, University of Brasília, Brasília, Brazil.

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

September 2016 **Teacher**, *University of Brasília*, University of Brasília, Brasília, Brazil.

- Teaching Robotics and ROS in ROSJoy Course.

January 2017 – February 2017 **Teacher Assistant**, *University of Brasília*, University of Brasília, Brasília, Brazil.

- Elaborated challenges and assignments under the Professor's supervision for Computational Fundamentals of Robotics course during UnB Summer School and further documentation of the achieved goals.

May 30, 2017 – August 21, 2017 **Software Developer – Google Summer of Code 2017 participant with GNSS-SDR**, *University of Brasília*, University of Brasília, Brasília, Brazil.

- Expanding the GNSS-SDR software to GLONASS system.
- Implementation of Acquisition and Tracking blocks of the GLONASS version of GNSS-SDR.
- My contribution: https://gist.github.com/Gastd/f46a2bd78dcc11984e69eb7cbc49f8a4

August 2013 – Present **Undergraduate Researcher**, *LARA (Automation and Robotics Laboratory)*, University of Brasília, Brasília, Brazil.

- Currently working with SDR development, software defined radio for mobile robots localization using multi-constellation GNSS systems.
- Also engaged in others projects in robotics, more specifically on perception and navigation.
- Implemented a "chatbot" system for control a mobile robot using speech recognition.
- Implemented a indoor localization system using an EKF and ARToolKit tags.
- Implemented ROS drivers for GPS and IMU sensors.

Skills

Programming Languages	C/C++, Python, Haskell, Ruby
Frameworks	Robot Operating System (ROS), GoogleTest, CMake
Libraries	OpenCV, OpenGL
Debugging Tools	GDB, Valgrind
Operating Systems	Linux (Ubuntu), Windows
Fab skills	Soldering, PCB printing
Applications	MatLab, LATEX, Lyx, LibreOffice, SolidWorks, MS Office, Fritzing