Gabriel F P Araujo

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gastd.github.io

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, Coq, Haskell, Ruby
Frameworks	Robot Operating System (ROS), GoogleTest, CMake
Libraries	OpenCV, OpenGL
Debugging	GDB, Valgrind
Applications	MatLab, LATEX, Lyx, LibreOffice, SolidWorks, MS Office, Eagle