



# Johnathan Fercher da Rosa

## Resume

### Education

- 2015–2017 **MSc in Defense Engineering**, *Military Institute of Engineering*, Rio de Janeiro, IME-Rio de Janeiro.
- 2012–2015 **BTech in Information and Communications Technology**, *College of Technological Education of State of Rio de Janeiro*, FAETERJ-Petrópolis.

### Publications

- 2016 **Construction of a Framework of Path Planning and Trajectory Control in Real Time of Multiple Robots**, *III Workshop on MSc Dissertation and PhD Thesis in Robotics*, Recife, PE.
- 2017 **A General Approach to the Problem of Path Planning and Trajectory Control of Multiple Terrestrial Robots in Dynamic Environments**, *Brazilian Symposium on Intelligent Automation*, Porto Alegre, RS.

### Experience

- 2017–2019 **Analyst Developer**, *Braspag*, Rio de Janeiro.  
E-commerce, Antifraud and Innovation
- I worked at Braspag developing antifraud systems on APIs. The solutions were developed in C# using Object-Oriented Programming and following SOLID and DDD principles. My team used SCRUM with aid of Kanban;
- 2014–2015 **Scientific Internship**, *National Laboratory of Scientific Computing (LNCC)*, Petrópolis.  
Virtual Reality Applications
- Was developed in C++ a control system for Cyberforce set (CyberForce, CyberGrasp and CyberGlove);
- 2013–2014 **Trainee of Research and Development**, *Allen Informática*, Petrópolis.  
Web and Android Applications
- Were developed Android and Web systems in C# and Java;

Petrópolis – Rio de Janeiro, Brazil

✉ [johnathanfercher22@gmail.com](mailto:johnathanfercher22@gmail.com) • [github.com/johnfercher](https://github.com/johnfercher)

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## Certifications

- 2014 5th Luso-Brazilian School of Evolutionary Computation (LNCC)
- 2014 Visual C++ Programming (NCSA)

## Projects

- 2017–**VSS-SDK**, *A opensource suite development kit to build robot soccer teams.*  
Nowadays Robotics and Simulation
  - The development was initiated by me, but nowadays more engineers are contributing with the development. The SDK has been developing mainly in C++, but we are developing libraries in Python and Rust;
- 2013–2017 **SIRLab**, *Laboratory of Intelligent Systems and Robotics.*  
Robotics and Simulation
  - Were developed a robot soccer team and a virtual multi-agent soccer team;

## Awards and Honorable Mention

- 2014 Runner-Up - Robocup 2D Soccer Simulation League (at Latin American Robotics Competition - LARC)
- 2014 4th Place - IEEE Very Small Size Soccer (at Latin American Robotics Competition - LARC)

## Development skills

- Basic Node.JS, Vue.JS, Java, AWS and Azure;
- Intermediate Cmake, Rust, Python, Linux, Shellsript, SQL, CSS, Bootstrap, Tests, Agile, SOLID, DDD, VSTS, Design Patterns and Docker;
- Advanced C#, C/C++, APIs, Git, Parallel/Async Programming and OOP;
- Others Computer Vision, LaTeX, Arduino, Raspberry, XBee, PID, Evolutionary Algorithms, ZeroMQ and Protobuf;

## Languages

- Portuguese **Native**
- English **Intermediate** *Professional Proficiency*

## Interests

- Development
- IoT
- Games
- Research
- Robotics
- Simulation