

# Emmanuel Podestá Junior

SOFTWARE ENGINEER

✉ epodestaj@gmail.com | 📱 EPodesta | 🌐 epodestaj

*"All we have to decide is what to do with the time that is given to us."*

## Summary

I have 7+ years experience on parallel and distributed systems focusing on low level development. With my experience, I learned to tackle several tasks to improve problem-solving skills, and increase my knowledge about tools and technologies. In each of those years, I developed and increased my love for challenging tasks and the knowledge that comes with every task solved.

## Work Experience

### Universidade Federal de Santa Catarina (UFSC)

RESEARCH AND DEVELOPMENT ENGINEER

Florianópolis, SC

Feb. 2015 - Aug. 2018

- Developed a parallel framework port that focus on CPU and GPU computation to a low-power processor in C++ and a proprietary processor library.
- The ported framework enabled a lower power consumption in comparison with general processors.

### Universidade Federal de Santa Catarina (UFSC)

RESEARCH AND DEVELOPMENT ENGINEER

Florianópolis, SC

Feb. 2019 - Nov. 2022

- Developed a methodology to mimic memory accesses from an application running on a host SO.
- Applied the methodology in a distributed OS running on a high performance and low power consumption processor.
- The methodology was able to mimic the behavior of applications on the distributed OS even without the needed support.
- This project was developed in Python and C.

### Université Grenoble Alpes (UGA)

RESEARCH AND DEVELOPMENT ENGINEER

Grenoble, France

Sept. 2019 - Nov. 2019

- Improved the developed methodology in a rich environment with authorities in the High Performance Computing area.

## Honors & Awards

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|------|--|--------------------|
| 2021 | <b>Finalist</b> , 16th Marathon of Parallel Programming  | Belo Horizonte, MG |
| 2018 | <b>Bachelor Honors Degree</b> , Universidade Federal de Santa Catarina (UFSC)  | Florianópolis, SC  |
| 2017 | <b>Best scientific initiation work in Departamento de Informática e Estatística (INE)</b> , Seminário de Iniciação Científica e Tecnológica da UFSC (SIC-UFSC) | Florianópolis, SC  |
| 2017 | <b>Second Place</b> , 12th Marathon of Parallel Programming  | Campinas, SP       |

## Skills

### PROGRAMMING LANGUAGES

#### Python

USED THROUGHOUT MY ACADEMIC EDUCATION AND SEVERAL PROJECTS.

Advanced

#### C

USED THROUGHOUT MY ACADEMIC EDUCATION AND SEVERAL PROJECTS.

Advanced

#### C++

USED THROUGHOUT MY ACADEMIC EDUCATION AND SEVERAL PROJECTS.

Intermediate

#### Java

USED IN A COUPLE OF YEARS IN MY COMPUTER SCIENCE COURSE.

Intermediate

#### Javascript

USED IN PROJECTS AFTER MY ACADEMIC EDUCATION TO LEARN ABOUT NEW TECHNOLOGIES AND LANGUAGES.

Beginner - Intermediate

## PHP

USED IN PROJECTS AFTER MY ACADEMIC EDUCATION TO LEARN ABOUT NEW TECHNOLOGIES AND LANGUAGES.

*Beginner - Intermediate*

## CSS

USED IN PROJECTS AFTER MY ACADEMIC EDUCATION TO LEARN ABOUT NEW TECHNOLOGIES AND LANGUAGES.

*Beginner - Intermediate*

## LANGUAGES

### Brazilian Portuguese

*Native*

### English

ALWAYS SEARCHING FOR NEW WAYS TO IMPROVE MY COMMUNICATION.

*Advanced, Fluent*

## OTHER TECHNOLOGIES

### High Performance Computing

USING THROUGHOUT MY ACADEMIC EDUCATION.

*Advanced*

### Distributed Systems

USING THROUGHOUT MY ACADEMIC EDUCATION.

*Advanced*

### Parallel Computing

USING THROUGHOUT MY ACADEMIC EDUCATION.

*Advanced*

### Linux

USING THROUGHOUT MY ACADEMIC EDUCATION UNTIL TODAY.

*Advanced*

### Git

USING THROUGHOUT MY ACADEMIC EDUCATION UNTIL TODAY.

*Intermediate*

### Wordpress

USED IN PROJECTS AFTER MY ACADEMIC EDUCATION TO LEARN ABOUT NEW TECHNOLOGIES AND LANGUAGES.

*Beginner - Intermediate*

### MySQL

USED IN A COUPLE OF YEARS IN MY COMPUTER SCIENCE COURSE.

*Beginner - Intermediate*

### Travis CI

USED IN A PART OF MY MASTER'S PROJECT.

*Beginner*

### Jenkins

USED IN A PART OF MY MASTER'S PROJECT.

*Beginner*

## Presentations

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### 36th ACM/SIGAPP Symposium On Applied Computing (SAC)

PRESENTER FOR A TRACE-DRIVEN METHODOLOGY FOR DISTRIBUTED OSES

*Virtual Conference*

*Mar. 2021*

- Introduced core concepts about High Performance Computing and power consumption.
- Discussed distributed OSES and how they improve High Performance Computing environment.
- Presented a methodology proposal to solve problems inside this context.

### 18th Simpósio de Sistemas Computacionais de Alto Desempenho (WSCAD)

PRESENTER FOR POWER EFFICIENT APPLICATIONS EXECUTION FOR A LIGHTWEIGHT MANYCORE

*Campinas, SP*

*Oct. 2017*

- Introduced core concepts about High Performance Computing and power consumption.
- Discussed about frameworks for application execution.
- Presented an improvement on a framework to achieve better power efficiency.

## 17° Escola Regional de Alto Desempenho do Estado do Rio Grande do Sul (ERAD/RS)

Ijuí, RS

PRESENTER FOR A FRAMEWORK PSKEL IMPLEMENTATION WITH SUPPORT FOR ITERATIVE STENCIL APPLICATIONS ON MPPA-256

Apr. 2017

PROCESSOR

- Introduced core concepts about High Performance Computing and power consumption.
- Discussed about frameworks for application execution.
- Presented an improvement on a framework to achieve better power efficiency.

## 16° Escola Regional de Alto Desempenho do Estado do Rio Grande do Sul (ERAD/RS)

São Leopoldo, RS

PRESENTER FOR PSKEL-MPPA: A PSKEL FRAMEWORK PORT TO MPPA-256 MANYCORE PROCESSOR

Apr. 2016

- Introduced core concepts about High Performance Computing and power consumption.
- Discussed about frameworks for application execution.
- Presented initial concepts to improve a framework to achieve better power efficiency.

## Education

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### Universidade Federal de Santa Catarina (UFSC)

Florianópolis, SC

BACHELOR DEGREE IN COMPUTER SCIENCE

Aug. 2013 - Aug. 2018

### Universidade Federal de Santa Catarina (UFSC)

Florianópolis, SC

MASTER'S DEGREE IN COMPUTER SCIENCE

Feb. 2019 - Nov. 2022

## Extracurricular Activity

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### Universidade Federal de Santa Catarina (UFSC)

Florianópolis, SC

TEACHING ASSISTANT ON PARALLEL AND DISTRIBUTED PROGRAMMING CLASS

Feb. 2019 - Jul. 2019

- Helped the teacher with the creation and review of documents, and presentations for the class.
- Helped on the creation of several problems for the students.
- Answered conceptual questions from students, and helped them with bugs and questions.