Emmanuel **Podestá Junior**

Software Engineer

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

Summary

I have 5+ 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)

Florianópolis, SC

Research and Development Engineer — *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)

Florianópolis, SC

Research and Development Engineer — *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)

Grenoble, France

Research and Development Engineer — *Sept. 2019 - Nov. 2019*

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

Honors & Awards

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

Skills

Programming Languages

Python — *Advanced*

Used throughout my academic education and several projects.

C — *Advanced*

Used throughout my academic education and several projects.

C++ — *Intermediate*

Used throughout my academic education and several projects.

Java — *Intermediate*

Used in a couple of years in my computer science course.

Javascript — *Beginner - Intermediate*

Used in projects after my academic education to learn about new technologies and languages.

PHP

Beginner - Intermediate

Used in projects after my academic education to learn about new technologies and languages.

CSS

Beginner - Intermediate

Used in projects after my academic education to learn about new technologies and languages.

Languages

Brazilian Portuguese

Native

English

Advanced, Fluent

Always searching for new ways to improve my communication.

Other technologies

High Performance Computing

Advanced

Using throughout my academic education.

Distributed Systems

Advanced

Using throughout my academic education.

Parallel Computing

Advanced

Using throughout my academic education.

Linux

Advanced

Using throughout my academic education until today.

Git

Intermediate

Using throughout my academic education until today.

Wordpress

Beginner - Intermediate

Used in projects after my academic education to learn about new technologies and languages.

MySQL

Beginner - Intermediate

Used in a couple of years in my computer science course.

Travis CI

Beginner

Used in a part of my master's project.

Jenkins

Beginner

Used in a part of my master's project.

Presentations

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

Virtual Conference

Presenter for a Trace-driven methodology for distributed OSes

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)

Campinas, SP

Presenter for Power efficient applications execution for a lightweight manycore

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.

17º 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 Processor *Apr. 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.

16º 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

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

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.