Jessica Imlau Dagostini

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Summary Statement

Hi! I'm a 3rd year PhD student in Computer Science, working with HPC for scientific computing. My current work relies on accelerating a DNA mapping application for GPUs and different hardwares. I am currently looking for internship opportunities for Summer or Fall 2025.

Employment History

2022 – Ongoing
- **Teaching Assistant** Computer Science and Engineering Department, Baskin Engineering, UC Santa Cruz, USA.
- **Graduate Student Researcher** Computer Science and Engineering Department, Baskin Engineering, UC Santa Cruz, USA.

Fall 2023
- **PhD Intern** High Performance Computing Group, Advanced Computing, Mathematics, and Data Division, Pacific Northwest National Laboratory, USA.

2021 – 2022
- **Principal System Architect.** beecrowd, Brasil.

2020 – 2022
- **Graduate Student Researcher** Graduate Program in Computer Science, Institute of Informatics, Federal University of Rio Grande do Sul (UFRGS), Brasil.

Summer 2019
- **Undergraduate Intern*** Scientific Computing Group, Brazilian Synchrotron Light Laboratory, Brazilian Center for Research in Energy and Materials (CNPEM), Brasil.
  *Special program run by CNPEM focused on undergraduate students from all Latin America. More than 300 students applied for the program on that year, and only 24 students were selected.

2015 – 2019
- **Undergraduate Student Researcher** Computer Science Department, Universidade Regional Integrada do Alto Uruguai e das Missoes (URI Erechim), Brasil.

Education

2022 – Current
- **Ph.D. Student Computer Science, UC Santa Cruz, USA**
  Co-advisors: Scott Beamer, Tyler Sorensen.

2020 – 2022
- **M.Sc. Computer Science, UFRGS, Brasil**
  Thesis title: *"Performance Improvements Applied in an Electromagnetic Inversion Application Focused on Homogeneous and Heterogeneous Computational Environments"*
  Advisor: Prof. Dr. Lucas Mello Schnorr.

2015 – 2020
- **B.Sc. Computer Science, URI Erechim, Brasil**
  Thesis title: *"Evaluating the Container's Applicability in a Distributed System of Code Judgement" (Original title: "Avaliação da Aplicabilidade de Containers em um Sistema Distribuído de Julgamento de Códigos")*
  Co-advisors: Neilor Avelino Tonin, Jean Luca Bez

Research Publications

1. **J. Dagostini**, V. Pinto, and L. Schnorr, "Aplicação de método guloso para balanceamento de carga em uma aplicação de exploração eletromagnética," in *Anais da XXI Escola Regional de Alto Desempenho da Região Sul*, SBC, 2021, pp. 87–88.
2. **J. I. Dagostini**, H. C. P. da Silva, V. G. Pinto, R. M. Velho, E. S. Gastal, and L. M. Schnorr, "Improving workload balance of a marine csem inversion application," in *2021 IEEE International Parallel and Distributed Processing Symposium Workshops (IPDPSW)*, IEEE, 2021, pp. 704–713.

3 **J. Dagostini**, M. V. de Moura Lima, J. L. Bez, and N. Tonin, "Uri online judge blocks: Construindo soluções em uma plataforma online de programação," in *Brazilian Symposium on Computers in Education (Simpósio Brasileiro de Informática na Educação-SBIE)*, vol. 29, 2018, p. 168.

4 **J. Dagostini**, M. V. de Moura Lima, L. Bucior, N. Tonin, and J. L. Bez, "Incentivando a aprendizagem de algoritmos através do uri online judge forum 2.0," in *Brazilian Symposium on Computers in Education (Simpósio Brasileiro de Informática na Educação-SBIE)*, vol. 28, 2017, p. 1781.

5 **J. I. Dagostini**, J. L. Bez, N. A. Tonin, and P. R. Rodegheri, "Um novo ambiente de discussões para o uri online judge," *PERSPECTIVA, Erechim. v. 41, n.154, p. 65-74*, 2017.

Skills

Languages	Advanced English, Portuguese Native Speaker, Medium Spanish.
Coding	C, C++, Python, R, PHP, HTML, CSS, SQL, LaTeX.
Databases	MySQL, PostgreSQL.
Environments	Linux/Unix, NANO, BASH, GIT, Docker and LXC Containers, SPACK, SLURM
Tools and APIS	OpenMP, Score-P, Intel VTune, CUDA, MPI
Miscelanious	Academic research, teaching, training, and consultation Strong abilities with leadership and teamwork Experience with workload characterization of scientific applications

Miscellaneous Experience

Awards and Achievements

2024 **Computational and Data Science Fellowship**, ACM SIGHPC, Academic Funding.
Grad Cohort for Women, CRA-WP, Selected Participant w/ Travel Funding.
2023 **2º Place**, ISC Virtual Student Cluster Competition
Dean's Fellowship, UC Santa Cruz
2021 **Best Lightning Talk**, Students@SC'21, Supercomputing Conference.
2020 **Summa Cum Laude**, (9.3/10.0) URI Erechim, Brasil.
SBC Highlight Student Award, Brazilian Computer Society (SBC).
2016 **2º Place**, Tecnomate Programming Contest 2016, Categoria "Libres".
2010 **Honorable Mention**, 6th Brazilian Math Olympiads of Public Schools (OBMEP), CNPq, Brasil.

Community Service

2024 **Lead Student Volunteer**, Supercomputing Conference.
General and Mentoring Co-chair, Women in HPC Workshop @ SC'24.
2023 **Wayfinding Co-chair**, Supercomputing Conference.
Submissions Co-chair. Women in HPC Workshop @ SC'23.
2022 **SCALE Student Volunteer**. Supercomputing Conference.
Volunteer Staff. International Collegiate Programming Contest, South America/Brazil Finals
Submissions Co-chair. Women in HPC Workshop @ SC'22.
2021 **SCALE Student Volunteer**. Supercomputing Conference.
Co-founder. Women in HPC Affiliate Brasil - Regiao Sul.
2020 **Student Volunteer**. Supercomputing Conference.