

Carlo Sulzbach Sartori

COMPUTER SCIENCE · OPTIMIZATION · OPERATIONS RESEARCH

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Skills

Programming	C++, C, Java, Python, R, LaTeX
Technology	Linux, Git, AWS, Bash/shell, Emacs, CMake
Optimization	Gurobi, CPLEX, GLPK, irace, Linear Programming, Dynamic Programming, Metaheuristics
Languages	Portuguese (native), English (fluent, iBT 113), French (basic), Dutch (basic)

Work Experience

KU Leuven

Ghent, Belgium

JUNIOR RESEARCHER

Sep. 2019 - present

- Research on vehicle routing and driver scheduling with complex temporal constraints. Working with metaheuristics, label setting algorithms, branch and bound and temporal constraint satisfaction problems.
- Acted as teaching assistant for Combinatorial Optimization classes (2020, 2021 and 2022).
- Published 5 papers in international venues: two in journals and three in conferences.

Amazon

Santa Clara, USA

APPLIED SCIENCE INTERN

May. 2022 - Sep. 2022

- Conducted research for vehicle routing and planning tools used by the Middle Mile Transportation team.
- My research looked into approaches to speedup the company's planning tool. The results have the potential of assisting in the company's growth and the addition of new business requirements.

uMov.me

Porto Alegre, Brazil

OPERATIONS RESEARCH CONSULTANT

Apr. 2019 - Sep. 2019

- Developed a vehicle routing package for uMov.me and helped integrating it into their platform. The package is now used daily by many of their customers, including large transportation and retail companies in Brazil.

Universidade Federal do Rio Grande do Sul

Porto Alegre, Brazil

TEMPORARY LECTURER

Aug. 2018 - Aug. 2019

- Taught *Introduction to Programming* and *Algorithms and Programming* classes for Engineering students. Programming language used was C. My teaching was well rated by students, achieving average scores of 4.8 (2018) and 4.9 (2019) out of 5 maximum.

Education

KU Leuven

Ghent, Belgium

PH.D. ENGINEERING TECHNOLOGY (COMPUTER SCIENCE)

Sep. 2019 - present

- Research on combinatorial optimization with focus on vehicle routing and driver scheduling.
- Supervisors: Prof. Dr. Greet Vanden Berghe and Dr. Pieter Smet.

Universidade Federal do Rio Grande do Sul

Porto Alegre, Brazil

M.Sc. COMPUTER SCIENCE

Mar. 2017 - Mar. 2019

- Research on combinatorial optimization with focus on hybrid metaheuristics for vehicle routing problems.
- Supervisor: Prof. Dr. Luciana S. Buriol.

Universidade Federal do Rio Grande do Sul

Porto Alegre, Brazil

B.Sc. COMPUTER SCIENCE

Mar. 2012 - Dec. 2016

- Final thesis focused on metaheuristic methods for vehicle routing problems supervised by Prof. Dr. Luciana S. Buriol.

Achievements

2021	Best paper award , ALGO - ATMOS 2021	Virtual, Portugal
2020	Best M.Sc. thesis award , LII - Brazilian Symposium on Operations Research	Virtual, Brazil
2017	Nominated for best undergraduate project , XLIX - Brazilian Symposium on Operations Research	Blumenau, Brazil