MATHEUS STOLET

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Campus E1 5, Saarbrücken, Germany 66123

EDUCATION

PhD, Computer Science *2021 - current*
Max Planck Institute for Software Systems
Advisor: Dr. Antoine Kaufmann

MSc, Computer Science *2019 - 2021*
University of British Columbia
Thesis: Large Scale Federated Analytics and Differential Privacy Budget Preservation
Advisors: Dr. Ivan Beschastnikh and Dr. Aline Talhouk

BA, Computer Science - Minor, Philosophy *2015 - 2019*
University of British Columbia

EMPLOYMENT

Research Intern, Microsoft Research Redmond *Jun. 2024 - Sep. 2024*
- Built systems to make kernel bypass more practical
- Optimized and added features to the Demikernel libOS
- Gathered and analyzed data on Azure applications to guide the design of new kernel bypass systems

Research Assistant, BC Cancer Research Centre *May 2019 - Aug. 2019*
- Developed a data analytics platform to perform distributed queries in hospitals and research centres
- Used differentially private techniques to prevent information leakage from distributed queries

Software Engineering Intern, Thrive Health *May 2018 - Aug. 2018*
- Developed a software module to help triage patients before surgery
- Used React and Redux to build features for webapp frontend
- Used AWS lambdas and SQS to scale deployment of media transcoder

TEACHING

Graduate Teaching Assistant, Max Planck Institute for Software Systems
- Operating Systems *Apr. 2024 - Sep. 2024*

Graduate Teaching Assistant, University of British Columbia
- CPSC 416: Distributed Systems *Jan. 2020 - May 2020*

Undergraduate Teaching Assistant, University of British Columbia
- CPSC 317: Internet Computing *Sep. 2018 - Dec. 2018*

PAPERS

Matheus Stolet, Liam Arzola, Simon Peter, Antoine Kaufmann. Virtuoso: High Resource Utilization and µs-scale Performance Isolation in a Shared Virtual Machine TCP Network Stack. *Under Review* (pre-print arXiv:2309.14016).

Vaastav Anand, Zhiqiang Xie, Matheus Stolet, Roberta De Viti, Thomas Davidson, Reyhaneh Karimipour, Safya Alzayat, Jonathan Mace. The Odd One Out: Energy is not like Other Metrics. In *HotCarbon* 2022

Vaastav Anand, Matheus Stolet, Thomad Davidson, Ivan Beschastnikh, Tamara Munzner, and Jonathan Mace. Aggregate-driven trace visualizations for performance debugging. *arXiv:2010.13681* 2020

POSTERS

Matheus Stolet. Virtuoso TCP Stack: Squashing Isolation and Resource Efficiency Tradeoffs in Virtualized Environments. **1st Place at SOSP Student Research Competition**, 2023.

Matheus Stolet, Tony Mason. Finesse: Kernel Bypass for File Systems. At *EuroSys Conference*, 2020.

SKILLS

Programming Languages
C, Python, Go, and JavaScript

Languages
Portuguese and English

AWARDS

1st Place ACM Student Research Competition, SOSP *2023*
International Student Tuition Award, University of British Columbia *2019*
Dean's List, University of British Columbia *2016*
Trek Excellence Scholarship, University of British Columbia *2016*
Faculty of Arts International Student Schoalrship, University of British Columbia *2016*

SERVICE

Reviewer, MPI Pre-Submission Application Review (PAR) Program *2023*
Volunteer, SOSP *2023*
Organizer, Cornell, Maryland, Max Planck Research School (CMMRS) *2022*