

FABRÍCIO CARVALHO

College of Computing, Federal University of Mato Grosso do Sul, Brazil

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EDUCATION

Ph.D. in Computer Science at UFMS, Brazil 2018 – present

Advisor: Ronaldo Alves Ferreira

M.S. in Computer Science at UFMS, Brazil 2012 – 2014

Advisor: Ronaldo Alves Ferreira

Thesis: *Construction of Causal Paths in Software Defined Networking (Portuguese)*

B.S. in Computer Science at UFMS, Brazil 2008 – 2011

Advisor: Marcelo Henriques de Carvalho

Thesis: *An Efficient Algorithm for Course Scheduling (Portuguese)*

SELECTED PUBLICATIONS

* **DWT in P4: Periodicity Detection in the Data Plane**

B. R. Huaytalla, A. S. Jacobs, M. V. B. Silva, F. B. Carvalho, R. A. Ferreira, W. Willinger, L. Granville.
IEEE GLOBECOM, 2022

* **Dyssect: Dynamic Scaling of Stateful Network Functions**

F. B. Carvalho, R. A. Ferreira, Í. Cunha, M. A. M. Vieira, M. K. Ramanathan.
IEEE INFOCOM, 2022

* **A Verified Session Protocol for Dynamic Service Chaining**

P. Zave, F. B. Carvalho, R. A. Ferreira, J. Rexford, M. Morimoto, X. K. Zou.
IEEE/ACM Transactions on Networking (ToN), 2021.

RESEARCH INTERESTS

Operating Systems

Programmable Data Planes

Kernel-bypass Technologies (DPDK, RDMA)

Network Function Virtualization (NFV) and Software Defined Networking (SDN)

TECHNICAL SKILLS

Fluent in Bash, C, C++, Rust, and Python

Advanced knowledge of Assembly x86, DPDK, and OpenFlow

REFERENCES

Ph.D. Advisor: Prof. Ronaldo Alves Ferreira

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Other references available upon request.