



Lucas Airam C. de Souza

CONTACT INFORMATION

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SHORT BIO

Lucas Airam Castro de Souza is an M.Sc. Electrical Engineering student at the Federal University of Rio de Janeiro (UFRJ) under the co-orientation of Prof. Luís Henrique M. K. Costa and Prof. Miguel Elias M. Campista. He obtained a B.Sc. cum laude in Electronics and Computer Engineering degree from UFRJ in 2021. Member of the research group Grupo de Teleinformática e Automação (GTA) at COPPE since 2017, under the orientation of Prof. Otto Carlos M. B. Duarte for 4 years and 10 months. His main research interests are security in computer networks, focusing on federated learning, blockchain, and payment channel networks.

EDUCATION

MSc. Electrical Engineering

2021 - current

UFRJ

Master's Degree in the Electrical Engineering Program na COPPE/UFRJ.

BSc. Electronic and Computer Engineering

2016 - 2021

UFRJ

Cum Laude, in Electronic and Computer Engineering at Universidade Federal do Rio de Janeiro.

SKILLS

<i>Languages</i>	Portuguese - Native Speaker
	English - Advanced
	French - Early Intermediate
<i>Softwares</i>	MATLAB, C/C++, PYTHON, GO, SPARK, DOCKER, Linux

PRIZES

- Honorable Mention at SBRC 2023.
- Honorable Mention at Workshop of Urban Computation of the SBRC 2023.
- Best Paper of the Session - Technology Center at the Giulio Massarani Conference on Scientific, Technological, Artistic and Cultural Initiation, Federal University of Rio de Janeiro (UFRJ) 2022.
- Honorable Mention WBlockchain 2021.
- Best Paper of the Session - Technology Center at the Giulio Massarani Conference on Scientific, Technological, Artistic and Cultural Initiation, Federal University of Rio de Janeiro (UFRJ) 2020.
- Honorable Mention WBlockchain 2020.
- Best paper of the WBlockchain 2018.
- Honorable Mention at the Brazilian Public School Mathematics Olympiad - OBE-MEP, Ministries of Science, Technology and Innovation 2011.

MAIN PUBLICATIONS

- **De Souza, L. A. C., et al.**, “Enhancing Automatic Attack Detection through Spectral Decomposition of Network Flows.” IEEE GLOBECOM 2022.
- Guimaraes, L. C. B., et al., “A Threat Monitoring System for Intelligent Data Analytics of Network Traffic.” Annals of Telecommunications 2021.
- Rebello, G. A. F., et al., “A Security and Performance Analysis of Proof-Based Consensus Protocols.” Annals of Telecommunications 2021.
- Camilo, G. F. et al., “AutAvailChain: Automatic and Secure Data Availability through Blockchain”, in IEEE GLOBECOM 2020.
- **De Souza, L. A. C. et al.**, “DFedForest: Decentralized Federated Forest”, in IEEE Blockchain 2020.
- Rebello, G. A. F. et al., “Providing a Sliced, Secure, and Isolated Software Infrastructure of Virtual Functions Through Blockchain Technology”, in IEEE HPSR 2019.