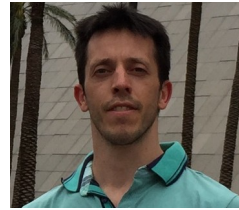


**CURRICULUM VITAE****Alexandre da Silva Veith**

December 2020

**PERSONAL**

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 Telephone +1 647 783-4106  
 Email veith.alexandre@yahoo.com.br  
 Birth date 03/05/1985  
 Nationality Brazilian/ German  
 Gender Male  
 Marital Status Married  
 Homepage <https://aveith.github.io/>

**BACKGROUND AND INTERESTS**

I am currently a Postdoctoral Fellow in the Department of Computer Science at the University of Toronto. I have published over 10 academic papers. I hold a PhD in Computer Science (2019) from the École Normale Supérieure de Lyon, France, with a thesis topic on algorithms for big data analytics. My research covered mechanisms based on queueing theory, graph theory, reinforcement learning, and big data analytics.

Despite my research experience, I had over 13 years of professional experience in industrial process analysis, software development and engineering, and IT management projects.

**My research interests** include machine learning, edge/fog computing, big data analytics, reinforcement learning, Internet of Things, optimization and placement problems, scheduling, and real-time systems.

**EDUCATION**

2016 - 2019 École Normale Supérieure de Lyon, France.  
 Ph.D. in Computer Science  
 Supervisors: Laurent Lefevre and Marcos Dias de Assuncao  
 2012 - 2014 University of Vale dos Sinos – Unisinos, Brazil.  
 M.Sc. in Computer Science  
 Advisor: Rodrigo da Rosa Righi, Ph.D.  
 2003 - 2011 FEEVALE University, Brazil  
 B.S. in Computer Science  
 Supervisors Gabriel da Silva Simões

**PROFESSIONAL AFFILIATIONS AND SERVICES****University of Toronto**

Postdoctoral Fellow (2019-present)

**École Normale Supérieure De Lyon**

Ph.D. Student (2016-2019)

**Altero Design**

- 1) Assistant of the Quality Management (2003-2009)
- 2) Software Developer and Analyst (2009-2011)
- 3) IT Manager (2011-2015)

**OTHERS SKILLS**

Program. Languages	DBMS	Frameworks	Simulators	Others
Java, C++, Python, Delphi, ABAP, LaTeX, R	PL/SQL, SQL Server	Hadoop, MapReduce applications, stream processing frameworks, messaging broker frameworks	OMNET++, SimGrid, iFogSim	SAP ECC 6.0 (ERP), Linux, Windows, macOS

**SOFTWARE REGISTRATION**

2015 INPI - National Institute of Industrial Property(The Brazilian Patent and Trademark Office)

Register number: BR512015000695-9 Language: C Software title: BSPonP2P

## TEACHING

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December 2018 - Advanced Topics in Scalable Data Management (M2), École Normale Supérieure de Lyon.

## PUBLICATIONS

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### *International Journals*

- De Souza Junior, Paulo R. R.; Matteussi, Kassiano J.; **da Silva Veith, Alexandre**; Zanchetta, Breno F.; R. Q. Leithardt, Valderi; Lozano M., Álvaro; P. de Freitas, Edison; dos Anjos, Julio C. S.; R. Geyer, Claudio F.. Boosting Big Data Streaming Applications in Clouds with BurstFlow. *IEEE Access*, 2020, 8, pp. 219124 – 219136.
- de Assunção, Marcos Dias; **da Silva Veith, Alexandre**; Buyya, Rajkumar. Distributed data stream processing and edge computing: A survey on resource elasticity and future directions. *Journal of Network and Computer Applications*, 2018, 103, pp. 1 – 17.

### *International Conferences*

- de Souza, Felipe Rodrigo; **da Silva Veith, Alexandre**; de Assunção, Marcos Dias; Caron, Eddy. 18th International Conference on Service-Oriented Computing (ICSOC 2020), December 2020, Dubai, UAE. pp. 149–164.
- de Souza, Felipe Rodrigo; de Assunção, Marcos Dias; Caron, Eddy; **da Silva Veith, Alexandre**. An Optimal Model for Optimizing the Placement and Parallelism of Data Stream Processing Applications on Cloud-Edge Computing - International Symposium on Computer Architecture and High Performance Computing. (SBAC-PAD 2020), September 2020, Porto, Portugal.
- da Silva Veith, Alexandre**; Dias de Assunção, Marcos; Lefèvre, Laurent. Monte-Carlo Tree Search and Reinforcement Learning for Reconfiguring Data Stream Processing on Edge Computing - International Symposium on Computer Architecture and High Performance Computing. (SBAC-PAD 2019), October 2019, Campo Grande, Brazil. pp 48-55.
- da Silva Veith, Alexandre**; de Souza, Felipe Rodrigo; Dias de Assunção, Marcos; Lefèvre, Laurent; Santos dos Anjos, Julio Cesar. Multi-Objective Reinforcement Learning for Reconfiguring Data Stream Analytics on Edge Computing - 48th International Conference on Parallel Processing. (ICPP 2019), August 2019, Kyoto, Japan. pp. 106:1–106:10.
- Gibert Renart, Eduard; **da Silva Veith, Alexandre**; Balouek-Thomert, Daniel; de Assunção, Marcos Dias; Lefèvre, Laurent. Distributed Operator Placement for IoT Data Analytics Across Edge and Cloud Resources. - 19th Annual IEEE/ACM International Symposium in Cluster, Cloud, and Grid Computing (CCGrid 2019), May 2019, Larnaca, Cyprus. pp. 459-468.
- da Silva Veith, Alexandre**; de Assunção, Marcos Dias; Lefèvre, Laurent. Latency-Aware Placement of Data Stream Analytics on Edge Computing. 16th International Conference on Service-Oriented Computing (ICSOC 2018 ), Nov 2018, Hangzhou, Zhejiang, China. pp. 1-15.
- C. S. Anjos, Julio; Matteussi, Kassiano; R. R. De Souza Jr, Paulo; **da Silva Veith, Alexandre**; Fedak, Gilles; Luis Victoria Barbosa, Jorge and R. Geyer, Claudio. Enabling Strategies for Big Data Analytics in Hybrid Infrastructures. The 2018 International Conference on High Performance Computing & Simulation (HPCS 2018), 2018, pp. 869-876.
- R. R. De Souza Jr, Paulo; Matteussi, Kassiano; C. S. Anjos, Julio; D. D. dos Santos, Jobe and R. Geyer, Claudio; **da Silva Veith, Alexandre**. Aten: A Dispatcher for Big Data Applications in Heterogeneous Systems. The 2018 International Conference on High Performance Computing & Simulation (HPCS 2018), 2018, pp. 585-592.
- da Silva Veith, Alexandre**; dos, A. J. C., de Freitas Edison Pignaton, J., L. T., and F., G. C.. Strategies for big data analytics through lambda architectures in volatile environments. 4th {IFAC} Symposium on Telematics Applications ({TA} 2016), November 2016, Porto Alegre, Brasil. pp. 114-119.
- da Rosa Righi, Rodrigo; **da Silva Veith, Alexandre**; Rodrigues, Vinicius Facco; Rostirolla, Gustavo; da Costa, Cristiano André; Farias, Kleinner; Alberti, Antonio Marcos. Rescheduling and checkpointing as strategies to run synchronous parallel programs on P2P desktop grids, 2015, Salamanca. Proceedings of the 30th Annual ACM Symposium on Applied Computing (SAC '15). New York : ACM Press. 2015. pp. 501-504.
- da Rosa Righi, Rodrigo; **da Silva Veith, Alexandre**; Rodrigues, Vinicius Facco; Rostirolla, Gustavo. BSPonP2P: Towards Running Bulk-Synchronous Parallel Applications on P2P Desktop Grids, 2015, Las Vegas. International Conference on Parallel and Distributed Processing Techniques and Applications, 2015. pp. 374-380.

### *Book*

- da Silva Veith, Alexandre**, Righi, Rodrigo. R.. Computação colaborativa de aplicações paralelas em ambientes P2P. NEA - Novas Edições Acadêmicas, 2015. ISBN: 9783639756210.

### *Book Chapter*

- da Silva Veith, Alexandre**; Dias de Assunção, Marcos. Apache Spark. Encyclopedia of Big Data Technologies, 2018. DOI: 10.1007/978-3-319-63962-8\_37-1, pp. 77-81.

### *Poster*

- da Silva Veith, Alexandre**; Dias de Assunção, Marcos; Lefèvre, Laurent. Apache Spark. Latency-Aware Strategies for Placing Data Stream Analytics onto Edge Computing - USENIX Workshop on Hot Topics in Edge Computing (HotEdge 2018), 2018, Boston, USA.

### ***National Conference***

**da Silva Veith, Alexandre;** Dias de Assunção, Marcos; Lefèvre, Laurent. Assessing the Impact of Network Bandwidth and Operator Placement on Data Stream Processing for Edge Computing Environments. Conférence d’informatique en Parallélisme, Architecture et Système.

**da Silva Veith, Alexandre,** Righi, Rodrigo. R.. BSPonP2P: Model for Collaborative Computing at BSP Applications in P2P Desktop Grid. *Escola Regional de Alto Desempenho (ERAD)*.

### **CONFERENCE PRESENTATIONS**

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**da Silva Veith, Alexandre (2019).** Multi-Objective Reinforcement Learning for Reconfiguring Data Stream Analytics on Edge Computing, 2019. Talk presented at Kyoto, Japan. 48th International Conference on Parallel Processing. (ICPP 2019).

**da Silva Veith, Alexandre (2019).** Distributed Operator Placement for IoT Data Analytics Across Edge and Cloud Resources. Talk presented at Larnaca, Cyprus. 19th Annual IEEE/ACM International Symposium in Cluster, Cloud, and Grid Computing (CCGrid 2019).

**da Silva Veith, Alexandre (2018).** Latency-Aware Placement of Data Stream Analytics on Edge Computing. Talk presented at Hangzhou, Zhejiang, China. 16th International Conference on Service-Oriented Computing (ICSOC 2018).

**da Silva Veith, Alexandre (2015).** BSPonP2P: Towards Running Bulk-Synchronous Parallel Applications on P2P Desktop Grids, 2015. Talk presented at Las Vegas. International Conference on Parallel and Distributed Processing Techniques and Applications (PDPTA 2015).

Geyer, Cláudio; dos Anjos, Júlio; Schemmer, Raffael; **da Silva Veith, Alexandre (2016).** Stream Processing em Cloud Computing. Talk presented at ERAD - Escola Regional de Alto Desempenho do Estado do Rio Grande do Sul.

### **LANGUAGES**

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English: Fluent

Portuguese: Native

French: Intermediary