

# Alberto Parravicini – Curriculum Vitae – 2019

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## Work Experience

**Feb 2018 - Oracle Labs** - Zurich & Milan - Research Assistant, Ph.D Student Collaborator

**Oct 2019** Created the first Named Entity Disambiguation algorithm that leverages vertex embeddings to deliver up to 90% accuracy and 30 disambiguations per second. Developed a proof-of-concept translator from Natural Language to Graph Query Languages. Improved the GPU support of GraalVM using LLVM transformations of CUDA code.

**Jan 2018 - Unicredit** - Milan - Research & Development Intern

**Jun 2018** Developed a C library for Entropy Measures on high-frequency financial data, and analysed how to use them as volatility proxies.

**Jul 2017 - AXA** - Brussels - Data Science Intern

**Sep 2017** Developed a deep-learning OCR (Optical Character Recognition) pipeline in Python to analyse insurance claims documents and perform fraud detection.

## Education

**2018 - Present** Doctor of Philosophy in Computer Science and Engineering at **Politecnico di Milano**.  
Researching high-performance heterogeneous architectures applied to graph analytics. Supervising 5+ students in my research group. Lecturer and TA of *Software Engineering* and *High-Performance Graph Analytics*.

**2015 - 2018** Master of Science Degree in Computer Science and Engineering at **Politecnico di Milano**. Graduation Mark: **110/110, Cum Laude**

**2017** **ATHENS:** Introduction to the Finite Elements Method at **TU Delft**, Netherlands

**2016** **IDEA League Summer School:** Responsible Artificial Intelligence at **TU Delft**, Netherlands

**2016 - 2017** Master of Science in Computer Science and Engineering at **Ecole Polytechnique de Bruxelles**. (Exchange Student)

**2012 - 2015** Bachelor of Science Degree in Engineering of Computing Systems at **Politecnico di Milano**. Graduation Mark: **106/110**

## Selected Publications

- **A. Parravicini**, R. Patra, D. B. Bartolini, M. D. Santambrogio, "Fast and Accurate Entity Linking via Graph Embedding", 2019 GRADES-NDA.
- L. Stornaiuolo, **A. Parravicini**, G. Durelli and M. D. Santambrogio, "Exploiting FPGAs from Higher Level Languages A Signal Analysis Case Study", 2017 IPDPS Workshops.

## Personal interests

- **Scientific interests** High-performance computing, graph analytics, computational finance
- **Other interests** Macro photography, hot enamel handicraft