

Andrea Lattuada

✉ andrea.lattuada@inf.ethz.ch

Education

- 2008–2012 **Corso di Laurea in Ingegneria Informatica (Bachelor's Degree in Computer Engineering)**, *Politecnico di Milano*.
- 2013–July 2016 **Master's Degree in Computer Science - Distributed Systems Track**, *ETH Zurich*, GPA 5.63/6.00 (cohort avg. 5.34, stddev. 0.26).
- February 2017–Current **PhD Student and Research Assistant**, *Systems Group, Dept. of Computer Science, ETH Zurich*.

Industry Experience

- 2008–2010 **R&D Collaborator - .NET Developer**, *Omnilab S.r.l.*, Milan.
Maintained and redesigned the internal CRM and task-tracking systems.
- 2009–2013 **Web Developer**, *Freelancing activity*.
Developed web applications and web sites for various small to medium-sized local businesses.
- Oct 2010–Jan 2011 **Site Reliability Engineering Intern**, *Google Switzerland GmbH*, Zurich, Switzerland.
Built a statistical data-mining tool for one of Google's storage teams responsible for large-scale backup and archiving.
- Sep 2012–Nov 2012 **Engineering Intern on the Core Server Team**, *10gen, Inc. (now MongoDB, Inc.)*, New York, NY.
Built database server commands and tools to visualize the record layout in MongoDB's data files and some bucket usage statistics for the index btrees.
- Aug 2013–Nov 2013 **Software Engineer Intern on the Production Engineering - Cache team**, *Facebook, Inc.*, Menlo Park, CA.
Built and productionized an automated tool to progressively resize a *memcache* cluster (add or remove machines) while monitoring the cluster's health, key client metrics, and the load on backend services.
- 2013–2016 **Co-Founder, Software Engineer**, *buildo*, Milan, Italy.
Founded a consultancy company focusing on providing technical advice and software design and development services to startups and enterprises. As a founding partner, tackled both the technical and entrepreneurial challenges of the company's growth.
- Worked on the design and implementation of (open-sourced) software libraries that served as a foundation for multiple products; coordinated various cross-project efforts;
 - designed and productionized a PaaS-based, container-based deployment infrastructure;
 - made critical contributions to the company's development practice by advocating peer review, CI, DevOps, and monitoring;
 - interviewed and selected the first employees and collaborators; helped define the hiring process.

Publications

- Master Thesis **Programmable scheduling in a stream processing system**, ETH Zurich.
- Short paper **Faucet: a user-level, modular technique for flow control in dataflow engines**, A. Lattuada, F. McSherry, Z. Chotia, Proceedings of the 3rd ACM SIGMOD Workshop on Algorithms and Systems for MapReduce and Beyond (BeyondMR '16), <http://doi.org/10.1145/2926534.2926544>.
- Poster **Differential durability: fault-tolerant distributed differential computation**, A. Lattuada, V. Kalavri, M. Hoffman, F. McSherry, Eurosys 2017, Poster session.
- Poster **SnailTrail: Online Bottleneck Detection for your Dataflow**, R. Sager, J. Liagouris, D. Dimitrova, A. Lattuada, V. Kalavri, Z. Chothia, M. Hoffmann, T. Roscoe, Eurosys 2017, Poster session.
- Poster **No-sync: coordination-free fault-tolerance in streaming**, A. Lattuada, V. Kalavri, M. Hoffman, F. McSherry, SOSP 2017, Poster session.
- Conference paper **SnailTrail: Generalizing Critical Paths for Online Analysis of Distributed Dataflows**, M. Hoffmann, A. Lattuada, J. Liagouris, V. Kalavri, D. Dimitrova, S. Wicki, Z. Chothia, and T. Roscoe, Proceedings of the 15th USENIX Symposium on Networked Systems Design and Implementation, <https://www.usenix.org/conference/nsdi18/presentation/hoffmann>.
- Short paper **Latency-conscious dataflow reconfiguration**, M. Hoffmann, F. McSherry, A. Lattuada, Proceedings of the 5th ACM SIGMOD Workshop on Algorithms and Systems for MapReduce and Beyond (BeyondMR'18), <https://doi.org/10.1145/3206333.3206334>.

Talks

- May 2015 **Building startups on Scala**, *Scala Italy conference*, Milan, Italy.
- November 2015 **How a Promise can get you out of callback hell**, *MilanoJS meetup*, Milan, Italy.
- March 2017 **Papers we love: Zürich, Naiad: A timely dataflow system**, *Papers we love*, Zürich, Switzerland.
- April 2017 **Typeclasses – A type system construct**, *Scalar conf*, Warsaw, Poland.
- September 2017 **A hammer you can only hold by the handle**, *Rustfest*, Zürich, Switzerland.

Languages

English **Level C2 (CEFR)**
Italian **Native speaker**

Cambridge English: Proficiency (2013)

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