

Jean-Baptiste Cordonnier

jean-baptiste.cordonnier@epfl.ch

EDUCATION

- July 2018 **École Polytechnique Fédérale de Lausanne** · Switzerland
Master of Science in Communication Systems · Data Analytics specialisation
Courses: Machine Learning, Information Theory, Database Systems, Analytics methods, Random graphs, Computer Vision, Intelligent agents, Concurrent algorithms, Cryptography.
- 2014-2015 **Carnegie Mellon University** · Pittsburgh, PA
Exchange program in the School of Computer Science · GPA 3.78/4.0 (Dean's list)
Courses: Distributed Systems, Network security, Stochastic Processes, Queueing Theory.
- May 2015 **École Polytechnique Fédérale de Lausanne** · Switzerland
Bachelor of Science in Communication Systems · GPA 5.74/6.0

EXPERIENCE

- July-Sept 2017 **UPC Cablecom** · Data Analyst Intern · *Zurich*
Improved Swiss network metrics ingestion with longer history (x5) and faster querying (x100)
Created *Elasticsearch* plugin for near real-time topology aware aggregation at node level.
Used *Kafka* to build a real-time alarming system on business metrics and *Neo4j* topology.
- Jan-June 2017 **Amazon Machine Learning** · Software Developer Intern · *Berlin*
Built a framework for metadata extraction of *MXNet* and *scikit-learn* models. Contributed to hosted computing platform using *AWS* services. Experimented with W-GAN and LSTM seq2seq for time-series forecasting.
- 2013-2018 **Teaching Assistant** · EPFL
1st year students: Information Theory, Discrete Math, Calculus I and II.
2nd year students: Algorithms, Functional Programming (Scala), Parallelism and Concurrency.
Graduate students: Deep Learning
- July-Sept 2015 **Amazon Machine Learning** · Software Developer Intern · *Berlin*
Developed profiling tools for cluster computation and notebook interface for scientific data visualisation. Worked on performance issues and Spark optimisations. *Scala, Apache Spark.*

PROJECTS

- Fall 2017 **Unsupervised learning of sentence representations** with Prof. Jaggi (EPFL)
Working on sentence and document embeddings to extend Sent2vec and fastText in *PyTorch*.
Experimented with more expressive models and simple attention mechanisms.
Optimised training on GPU with multithreaded data queue feeding and *LMDB*.
- Fall 2015 **Offline Spanning Tree Maintenance** with Prof. Svensson (EPFL)
Studied special case of spanning tree approximation algorithm involving combinatorial proofs, LP relaxation and primal-dual analysis.
- Fall 2014 **Virtual Traffic Lights** with Prof. Tonguz (CMU)
Worked on open research problem for traffic jam reduction. Analysed benefits of virtual traffic lights in different situations. Implemented scalable traffic optimisation algorithm in *Python*.

SKILLS

Scala, Python, Java, Javascript, C, Bash.
Spark, AWS, NumPy, Tensorflow, PyTorch, scikit-learn, Elasticsearch, Kafka, Neo4j, React, D3.
Unix, shell, git, vim, continuous integration, LaTeX.

AWARDS

- Sept 2018 **EPFL I&C Departmental Fellowship** PhD candidate funding for one year provided by EPFL.
Sept 2015 **Excellence Scholarship for the Master** EPFL reward for academic excellence during B.S.
Sept 2014 **Exchange Student Scholarship** Selected for exchange program at CMU.

LANGUAGES

French (mother-tongue) · English (fluent) · German (basic)

INTERESTS

- Fall 2016 **Hiking expedition in Nepal** · Everest and Annapurna region
Hiked with a partner for 3 months in semi-autonomy between 300m and 5400m of elevation.
- 2015 - 2016 **Ingénieurs Nomades** · vice-president
Bought and repaired ourself a 1989 Renault 4L. Participated in the 4L Trophy to Morocco.
Co-founded an association at EPFL to support other adventure projects.
- 2006 - 2016 **Scouts and Guides of France** · volunteer
Hiked and camped in France and Europe. Organised 2 weeks summer camps for 30 kids.