

BENJAMIN RIVIÈRE

MACHINE LEARNING ENGINEER

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Information






PERSONAL

Nationality French

LANGUAGES

- French** Native speaker
- English** Proficient (TOEIC 985/990)
- German** Basic
- Basque** Novice

HOBBIES

-  Reading
-  New technologies
-  Listening music
-  Swimming
-  Basque Pilota

CERTIFICATIONS

- PSC1** First Aid Certificate
- Coursera** NLP Specialization
- Coursera** DL Specialization

Employment Experience

- Since Sep. 2019** **Linkfluence - Meltwater** **Machine Learning Engineer**
Paris, France
Working on both NLP and CV topics on social media data. Designing systems for real-time processing at scale. Alternating between research and development. Improved CV pipeline performances by 6x.
Skills : Machine Learning, Terraform, Docker, Kubernetes, AWS, Python, Scala, Spark, CUDA, Git, Software Engineering
- Oct. 2018 - Sep. 2019** **Polynom** **Data Scientist**
Paris, France
Worked both as a Data Scientist for customers and as a Software Engineer on the SaaS platform. Rewrite the SaaS core to improve performances and maintainability.
Skills : Data Analysis, Machine Learning, Kubernetes, Docker, Git, GCP, Python, Node.js, APIs, OOP, Unit Tests
- Feb. 2018 - Jul. 2018** **Amadeus IT Group** **R&D Intern**
Sophia Antipolis, France
Developed a monitoring and smart alerting solution. Implemented anomaly detection on time series.
Skills : Python, Prometheus, Git, Docker, Markov Models, OOP, REST APIs, Unit Tests
- Sep. 2016 - Feb. 2017** **Siemens Corporate Technology** **Software Engineer Intern**
Princeton, NJ, USA
Developed a data acquisition system from various sensors. Optimized software by improving algorithms. Implemented new features and reduced code size by 50%.
Skills : Arduino, C++, Python, OOP, MATLAB, Network, Git

Education

- 2013 - 2018** **Master of Science** **Diplôme d'Ingénieur Informatique**
Université de Technologie de Compiègne (UTC), France
Major in Computer Science, Minor in Decision Data Mining. Bachelor of Science obtained in 2016. GPA of 5/5.

Core Competencies

- Advanced** Python • Docker
Object Oriented Programming • Machine Learning
Git
- Intermediate** Scala • SQL • Bash
Functional Programming • Statistics • Linear Algebra • Probabilities
Spark • Kubernetes • Terraform • Prometheus • LMDBs • Linux
- Beginner** CUDA • Rust
Network • Security
AWS • Elasticsearch
- Historical** C • C++ • HTML5/CSS3 • MATLAB • JavaScript/TypeScript
GCP



Projects

Oct. 2024

Connected Components Labeling for PyTorch

Personal project

Implement SotA algorithms for Connected Components Labeling on GPU for PyTorch. Highly improved performances compared to the CPU baseline. See [TorchCC](#).

Skills : CUDA, Python, C++, Git

Apr. 2024

Personal Infrastructure

Personal project

Setup personal infrastructure for various needs (blog, VPN, DNS, etc.) using k3s on bare metal servers. Backups for stateful applications are automated to S3-like storage.

Skills : Terraform, Kubernetes, Ansible, Git

Dec. 2019 -
Apr. 2020

Kiosk

Personal project - Université de Technologie de Compiègne

Developed a web application to display various contents onto screens for people without any computer science knowledge. Code is open sourced on [GitHub](#).

Skills : Node.js, TypeScript, REST API, WebSocket, Git, Raspberry Pi, Docker

Sep. 2017 -
Jan. 2018

High-volume geolocated data processing and forecasting

French Ministry of the Armed Forces

Distributed a database of ship trajectories using Elasticsearch. Highlighted harbors with DBSCAN and abnormal trajectories with SVM.

Skills : Elasticsearch, Python, DBSCAN, Kernel Methods, SVM, KPCA, Git, OOP

May - Jun.
2017

Taxi trajectories in Porto

Université de Technologie de Compiègne

Anticipated user queries using Cassandra. Detected recurrent trajectories with KMeans.

Skills : Cassandra, Python, KMeans, Git, Reporting

Feb. - Jun.
2016

Students' schooling vizualisation

Université de Technologie de Compiègne

Developed a web application to vizualise the different lectures choosen by the students. See [this article](#) for more information (in French).

Skills : JavaScript, HTML, CSS, Git

Feb. - Jun.
2015

Electronical GoPro Steadycam

Université de Technologie de Compiègne

Developed a steadycam system using an Arduino board, a gyroscope and servo motors.

Skills : Arduino, C++, SolidWorks, Electronics, Git



Associative Experience

Feb. 2016 -
Jul. 2016

Pic'asso Students Bar

Université de Technologie de Compiègne

Managed a team of 20 people, the bar organization (turnover: 450 000€) and the relationship with the school administration.

Chairman

Feb. 2015 -
Feb. 2016

SkiUTC

Université de Technologie de Compiègne

Organized a ski trip for 350 people (budget: 190 000€). Managed a team of 20 people, negotiated contracts and set up partnerships.

Vice-Chairman

Jul. 2015 - Jan.
2016

Pic'asso Students Bar

Université de Technologie de Compiègne

Handled the IT infrastructure of the bar and developed specific applications and systems.

IT Manager

Feb. 2015 -
Jul. 2015

Pic'asso Students Bar

Université de Technologie de Compiègne

Handled the communication processes of the bar and managed a team of 2 people.

Communication Manager