

Momar Faly TOURE

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EDUCATION

Master's degree in distributed systems and applications

Paris, France | Jul 2023

SORBONNE UNIVERSITY SCIENCES

- **Coursework:** Distributed algorithms, Big data and distributed databases, Linux kernel programming, Advanced architecture of OS kernels, C++ system programming, Critical systems.

Bachelor's degree in computer science

Paris, France | May 2020

SORBONNE UNIVERSITY SCIENCES

- **Coursework:** Algorithms and Data structures, Database Management Systems, Concurrent programming, Operating system, Compilation, Web development, Machine learning.
- **Math courses:** Advanced calculus, linear algebra, statistics.

SKILLS

Programming languages: Java, C, C++, Python, Javascript, Typescript, HTML/CSS, SQL, Prolog, Bash

Technologies: Git, React, Gatsby, Nextjs, Django, NodeJs, GCP, Firebase, MySQL, MongoDB, gRPC, Protobuf, MPI

WORK EXPERIENCE

Fullstack developer freelancer | SOCIUM JOB

Paris, Fr | Aug 2020 – Oct 2020

- Single handedly developed the minimum viable product from the founder's vision.
- Designed and assembled the front-end using **reactjs**.
- Implemented the backend using **Firebase** (cloud functions, authentication and firestore).
- Leveraged **Google Cloud Storage** to build the storage system.
- Collaborated closely with the CEO to put up about 10 demos for potential clients.

Web developer intern | NATIONAL MUSEUM OF NATURAL HISTORY

Paris, Fr | Jun 2019 - Oct 2019

- Worked on the e-Recolnat project which goal is to provide open access data on millions of species to naturalists and researchers.
- Architected and implemented an automation tool using **python** to help organise and classify thousands of herbaria images from other museums into CSV files.
- Initiated and completed the design and development of a fundraising page.

Private tutor | FREELANCE

Paris, Fr | Sept 2017 - Jun 2019

- Assisted and Mentored two high school students with academic difficulties in Mathematics and Physics.
- Improved their grades from 11 to 15 in average (scale: 0 to 20).

PROJECTS

Load balancer

C, MPI, DISTRIBUTED SYSTEM, CONCURRENCY

- Teamed with 2 people to conceive a load balancer for P2P networks using message passing interface.
- Evaluation of the load of each machine and the system's global state in a 5 machines network.
- Detection of overload and Transfer of tasks to the least loaded machine or addition of a new one to the network.

Birdy - a twitter clone

JAVA, J2E, MYSQL, MONGODB, APACHE TOMCAT

- A REST API built as a simpler version of twitter with a service-oriented architecture.

Scarcity

HTML/CSS, PYTHON, DJANGO, HEROKU

- A Web app created to raise awareness of climate change.
- Given a location and a year in the future, predicts which plants will no longer be able to grow there.
- Leverages two third-party APIs (trefle.io and World Bank's climate data API) to achieve so.

Intelligent agents

PYTHON, MINMAX, ALPHA-BETA, MONTE-CARLO ALGORITHMS

- AI players for 2 players board games. Achieved to have up to 98% win rate against an agent that plays randomly.