

# Mourjo Sen

<https://mourjo.me> | [hello@mourjo.me](mailto:hello@mourjo.me)

## EXPERIENCE

### **BOOKING.COM** Senior Software Engineer

*April 2023 - Present*

- **Tech lead for architecture modernization** of legacy backend systems
  - In 5 projects, 60 modules, 130 APIs, 2K requests/sec, 145K lines of code
  - Facilitate the move from **monolith to domain-driven microservices**
  - Drive **multi-year architectural vision**, principles, definition of done
  - Initiate **standard documentation process** with decision recording and request-for-comments across the department
- Own some of the hardest engineering problems
  - Built the core workflow engine for **payment configuration change management**
  - **Zero downtime** deployments for critical backend services
  - Reduce CI pipeline build time by 50%
- Nurture engineering culture at Booking
  - Improvements to **engineering productivity (DORA) metrics**
  - Present internal workshops, talks and blogs on engineering topics
  - Engineering **craft mentor** for new joiners and new graduates

### **STRIPE** Software Engineer

*March 2022 - April 2023*

- Worked on **identity verification platform** used in onboarding of accounts, supporting **world-wide regulatory requirements**.
- Built a tool for **automated feature parity testing** in APAC countries.
- Backend systems using Ruby, MongoDB, Redis, Kafka.

### **GOJEK** Lead Software Engineer

*February 2021 - March 2022*

- Led development of the **advertisements platform**: ad serving, ranking, telemetry.
- **Sessionization of event streams** for telemetry and rank estimation.
- Service-oriented architecture using Elixir, PostgreSQL, Redis, Elasticsearch.
- Stream processing using Flink, Kafka, Airflow, BigQuery.

### **HELPSHIFT** Data Engineer III

*March 2020 - February 2021*

- Modernization of legacy Hadoop platform handling 1 PB of data to "Delta Architecture" using Apache Spark, Delta Lake, Databricks.
- Built an **ETL platform** for no-code data pipeline ingesting from multiple sources into the data warehouse with transformations.

### **HELPSHIFT** Backend Engineer III

*October 2015 - February 2020*

- Built services that handle **30K requests/sec**
- Property-based testing using **QuickCheck** for automated test-case generation and verification

### **SPAM DETECTION IN TWITTER** Internship with Dr Arnaud Legout, Inria

*April 2014 - August 2015*

- **Master thesis on detecting spam behaviour** by analyzing the Twitter social graph
- Included a 6-month internship funded by **Microsoft Research**.

## TALKS/BLOGS

- Technical blog posts with **89K** reads since 2018.
- Talk at **Monster Scale 2025** on "What can flow metrics teach us about building designing resilient systems?"
- Talk at **re:Clojure 2020** on "Building Resilient Services in Clojure".
- Talk at **In/Clojure 2019** on **A Fair Task Execution Framework**.
- Three research publications, two on **IEEE**.

## EDUCATION

### **UNIVERSITÉ NICE** Masters in Computer Science

*2013 - 2015, Nice, France*

- Specialized in **Computer Networking**
- **Full scholarship** awarded by Labex UCN@Sophia.

### **ST. XAVIER'S COLLEGE**

#### Bachelors in Computer Science

*2010 - 2013, Kolkata, India*

### **MOOCS**

*2017 - present*

- **Data Engineering** with Google Cloud, 2021
- Ultimate hands-on **Hadoop**: Tame your big data, 2020
- Introduction to **Functional Programming in OCaml** (Université Paris Diderot), 2019
- **Functional Programming Principles in Scala** (École Polytechnique Fédérale de Lausanne), 2017

## LINKS

- [github.com/mourjo](https://github.com/mourjo)
- [linkedin.com/in/mourjo](https://linkedin.com/in/mourjo)
- [mourjo.medium.com](https://mourjo.medium.com)
- [twitter.com/mourjo\\_sen](https://twitter.com/mourjo_sen)