Hana SEBIA

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Education

Inria, Lyon Center **Nov 2020 – ongoing**
Ph.D. degree in Machine Learning *Lyon, France*

Université Claude Bernard Lyon 1 **Sept 2020 – Sept 2022**
Master's degree in Computer Science, Data Science option *Lyon, France*

Université Claude Bernard Lyon 1 **Sept 2017 – June 2020**
Bachelor's degree in Computer Science, Math option *Lyon, France*

Experience

Inria (French national institute for digital science) **March 2022 – August 2022**
Internship *Lyon, FRANCE*

[AI-RACLES] : A chair funded by Inria-APHP-CS aiming to develop new artificial intelligence techniques to better exploit the greater Paris university Hospital (APHP) data lake. The context of this internship is to investigate how to support the evaluation of health care pathways.

- Experimented existing approaches for patient phenotyping
- Proposed and implemented a new temporal phenotyping model
- Experimented the new model on APHP Covid-19 dataset

LIRIS (Laboratoire d'InfoRmatique en Image et Systèmes d'information) **June 2020 – September 2021**
Internship *Lyon, FRANCE*

[KANOPEE] : A project in partnership with Bordeaux University Hospital, aiming to extract meaningful insights from data collected using an application offering clinical identification and advice to limit sleep problems.

- Summarized statistical description of attributes
- Carried out data visualisation
- Applied Machine Learning algorithms (data clustering)

[QUALITOP] : European project aiming to develop a big data analysis platform to monitor health status and quality of life of cancer patients.

- Elaborated the database conceptual model
- Managed the data quality and carried out data pre-processing (harmonization and imputation)
- Applied Machine Learning algorithms (data clustering)
- Worked within a team of associate professors and physicians

Projects

Evaluation Engine for Datalog | *Java* **June 2021**
- Implemented the Top-down query evaluation engine

Scrabble move generation | *C++* **April 2020 – June 2020**
- Implemented the faster algorithm to generate every possible move giving a rack and a given square

MatriXMiX | *C++* **March 2019 – May 2019**
- Implemented matrix basic and advanced operations (diagonalization and decomposition)

Publications

- **Hana Sebia**, Hana Sebia, Thomas Guyet, Etienne Audureau (2023). Une extension de la décomposition tensorielle au phénotypage temporel. In EGC 2023

- **Hana Sebia**, Tarik Boumaza, Mohand-Saïd Hacid, Marie Le Guilly and Delphine Maucort-Boulch, "Impact de la Pollution de l'Air sur la Mortalité : État des Lieux et Approches", in EGC 2022

Technical Skills

Programming languages: Python, R, SAS, Java, C/C++, SQL, Prolog, Datalog
Machine learning frameworks: PyTorch, Scikit-Learn, Pandas, Spark, Storm, D3.js
Languages: French (native), English (professional use)