
Education

Grenoble **Grenoble INP-Ensimag** **Sep. 2023 – Aug. 2024**

- Second year of master in Computer science - Data science and Artificial intelligence.

Grenoble **Université Grenoble alpes** **Sep. 2020 – May 2023**

- First year Master in Computer science, June 2023.
- Bachelor degree in Computer science, June 2021.

Research Internships

Grenoble Informatics Laboratory **May – July 2023**

- Subject : Integrating information retrieval (IR) constraints in deep neural networks.
- Reformulated some IR constraints to the neural framework.

Grenoble Institute of Neurosciences **Feb. – Aug. 2022**

- Subject : Integration of multi-parametric data by machine learning for the development of an imaging biomarker in epilepsy.
- Implemented a clustering model using (k-means and Gaussian mixture models) for multi-parametric data, and evaluated employing Akaike and Bayesian information criterions. Used mainly **Python scikit-learn** and **NiBabel**.

Grenoble Informatics Laboratory **June – July 2021**

- Subject : Data augmentation with generative adversarial networks (GANs) for semi-supervised classification applied to images.
- Implemented a semi-supervised model in python for the prediction of phase and Euler angles in microscopic data. Evaluated different models and techniques including Generative adversarial networks, Support vector regression and Random forest.

Programming Languages and Technologies

- C/C++; Java; Python; SQL; Shell; Linux; Git; Java RMI; RabbitMQ; Docker; LaTeX; GDB; Valgrind; Google test; JetBrains; OpenMP; Open MPI.
- TensorFlow; Pytorch; NumPy; SciKit-Learn; SciPy; Pandas; Keras; Matplotlib; OpenCV; BeautifulSoup.

Technical Experience – Projects

- **Distributed Messaging System using Virtual Overlay Ring Network** (2023). Designed and implemented using Java and RabbitMQ, highlighting expertise in distributed systems and routing algorithms.
- **System Programming Project - NachOS** (2023). Collaborated on a team to implement processes, threads, and synchronization features in the Nachos operating system, gaining valuable experience in OS design, implementation and multithreading.
- **Internships web scraping app** (2022). Developed an automated application to extract and organize internship proposals from the faculty website into a CSV format, followed by data manipulation and analysis, showcasing proficiency in web scraping and data processing. Python, Pandas, BeautifulSoup.

Student Employment

Student Tutor **Self-employed - Grenoble** **Sep. 2019 – Present**

- Taught maths, physics, chemistry and computer science, to all ages ranging from children to elderly.
- **Skills** : teaching, communication, patience, problem-solving, adaptability, time management.

Education Assistant **Grenoble High School** **Sep. 2021 – Aug. 2023**

- Facilitated student growth through comprehensive residential support and dedicated supervision.
- **Skills** : leadership, responsibility, communication, mediation, teamwork.

Spoken Languages

- English : Full professional proficiency.
- French : TCF C1
- Arabic, Kabyle : Native.