Zaccarie Kanit

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Languages

French - *Native speaker*
English - *Fluent - C1*
German - *Professional - B2*
Arabic - *Professional - B1*

Skills

Programming

- *Python, SQL, R, Matlab*
- *Java, C/C++*
- *Linux, bash, PowerShell*
- *PyTorch, LibTorch, AdapterHub*
- *OpenMP, xsmid, Cuda*
- *VHDL, FPGA, RaspberryPi, ZedBoard*
- *Unity, C#, Hololens*
- *Network, Sysadmin, Cisco*
- *gitlab, CI/CD, .deb, Docker*
- *Graphic and CLI debugging*
- *Azure*

Office skills

- *Office Pack, Google Tools and AppScript*
- *LaTeX*
- *Zapier, AirTable*

Audiovisual editing

- *Adobe Premier / Photoshop / Audition, Gimp*
- *FLStudio*
- *OBS*

Interests

Sports

- *karate black belt (8y), basket-ball in club (6y), biking (8y), thaï boxe (2y)*

Leisures

- *videogames' design analysis (12y), bassist in a groupe (5y), theater at the Paris' Conservatory (4y), cinema talkshows (8y)*

M1 Engineering Student looking for an internship/job as an Data Scientist starting from April 2024

Experience

Software Engineer Intern — SIMULANDS — October 2023 - March 2024

- A medtech startup that develops Human Grade simulators that replicate real procedural experiences with accurate device performance insights.
- Mixed Reality Software developement : training a **Deep Learning segmentation model to track hands and surgical tools** and developing a stereovision algorithm to estimate their position / **optimizing the model and parallelizing the algorithm** to ensure **real time computation** / **designing hardware and software architecture** to improve computation / optimizing the software setup for stabilization / building AR Unity scenes / gamifying procedures to ease the learning curve.
- Database administration : migrating our subcontractor's database / creating a pipeline to perform redundant statistic analysis instead of the marketing team / training analysis to give insights on the trainings.

Research Assistant Intern — CEA List — April 2023 - August 2023

- A research institute that focuses on digital systems to drive business competitiveness. Its Text and Image Analysis Laboratory studies Deep Learning models, their improvement and their use.
- Project : Researching a **state-of-the-art Transformer based NLP model** / developing its training pipeline in Python and implementating its conversion in C++ / training the model with CEA's cluster / developing the **inference using an optimized C++ engine** to achieve a high frequency of tokens computed / integrating my work into their multilingual NLP model / focusing on the **documentation and sustainability of the work**.

Network Administrator, Secretary, Training Manager — ResEl — 2021 - 2023

- A technical association providing a network of +3K machines across two campuses on different cities, and enabling members to acquire essential technological skills.
- Learning the ins and outs of project management in the field of network engineering as a **manager of a team of student administrators**. I also **ensured the legal framework of the association** and its events especially when planned with professional partners as board member.
- Organizing events such as the Google Hash code and the FedeRez Days and seting training programs for students to learn from the basis of IT to advanced network skills.
- Project : **Development of an inverter monitoring tool**

Education

MicroMaster program in Statistics and Data Science — MITx — February 2023 - May 2023

- Machine Learning in Python : From Linear Models to Deep Learning - 230h
- Slides and lab sessions teaching from **Linear Classifier and recommander systems to Unsupervised and Reinforcement Learning** with projects every week to apply the notions.

Master in Engineering specialized in Embedded Systems, Excellence Program for Research — IMT Atlantique — 2021 - 2025

- 5th-ranked engineering school in France.
- Mathematics, **Computer Vision**, **Data**, Sc Computing, **graph theory**, logistic optimization.
- Embedded Systems: **Algorithm-to-Chip Design & Architecture**, Low-Level Software-Hardware Interactions, **Parallel Computing**, Stochastic Dynamic Modeling, **Deep Learning Optimization**.
- School Projects: **DevOps of a Deep Learning based audio measurement service in Docker** and .deb with Orange (telecom company) / preliminary study of an electronic waste recycling startup.
- Research Projects: Implementation of a **Fast resolution algorithm in C++ to compute eeg signals in real time** / **state-of-the-art in ML comparing CNN and Vision Transformer in term of inference time and ressources consumption** / course given by myself on Inversible CMOS Logic to introduce this field of research to students in order to follow a Naoya Onizawa conference.

Volunteering

President — Club Kebab — 2021 - 2022

- Weekly sale of a hundred homemade kebabs on campus with a team of 8 other students.
- **Organizing the logistics and communication** of each event with a focus on hygien and security.
- Creating new partners relationship with local actors to have fresh products.

Vice-President — Arts Committee — 2021 - 2022

- The Art Commitee is the organization which manages events and clubs on the campus. The Bureau is elected by students according to the capacity of a team to conduct art oriented events.
- I **managed a team of 18 students** with respective broad roles. I managed this team through my term and filled paper to ensure the legal framework and security of all the events.
- The events : concerts by students and local musicians, western France cultural events, a week of artistic events with local performers, a cultural trip in Amsterdam for 90 students.