# Zaccarie Kanit

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zaccarie-kanit
n2oblife

## Languages

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

## Skills

### Programming

- *Python, SQL, R, Matlab*
- *Java, C/C++, CMake*
- *Linux, bash, PowerShell*
- *PyTorch, LibTorch, AdapterHub*
- *OpenCV (C++)*
- *Parallele Computing, Cuda*
- *VHDL, FPGA, RaspberryPi, ZedBoard*
- *Unity, C#, Hololens*
- *Network, Sysadmin, Cisco*
- *gitlab, CI/CD, Docker*
- *Graphic and CLI debugging*

### Office skills

- *Office Pack, Google Tools and AppScript*
- *LaTeX, Doxygen*
- *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 (12y), bassist in a groupe (5y), theater at the Paris' Conservatory (4y), cinema talkshows (8y)*

# M2 Engineering Student looking for an internship as an Engineer starting from April 2024

## Experience

**Software Engineer Intern** SIMULANDS **October 2023 - March 2024**

- *A Swiss 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.*

**IMT Atlantique**
Bretagne-Pays de la Loire
École Mines-Télécom

**RECOMMANDATION LETTER FOR THE APPLICATION OF MR. ZACCARIE KANIT**

As responsible of the "Embedded and Heterogeneous Systems" major at IMT Atlantique and a lecturer in several courses, I had the pleasure of teaching and interacting with Mr. Zaccarie Kanit during his second year at IMT Atlantique (2022-2023), where he chose this major.

In particular, I had the opportunity to interact with him during the course "Embedded Systems: Hardware-Software Interaction" for which I am responsible, as well as the courses "Design Methodologies - from Algorithm to Chip" and "High-Level Circuit Design". Throughout the class and lab sessions, Zaccarie demonstrated high levels of rigor, thoughtfulness, motivation and technical skills.

Zaccarie has acquired very good skills in embedded systems, and has managed to successfully complete all the courses offered in the Embedded and Heterogeneous Systems major. He gave us a good impression, both in terms of his scientific skills and his commitment.

At the start of this new academic year (2023-2024), I also very much appreciated his maturity, his availability and his involvement in sharing his experience with the new students who are going to follow this same major and answering their questions.

I'm fully convinced of Zaccarie's scientific qualities and skills in theory and practice, in addition to his genuine human qualities and excellent communication skills.

For all these reasons, I strongly support Mr. Zaccarie Kanit's application. I am convinced that he will give full satisfaction and achieve very good results. I remain at your disposal should you require any further information or clarification.

Sincerely,

November 10th, 2023, Brest – France

Amer Baghdadi, PhD, HDR

Professor at IMT Atlantique
Head of the “Embedded and Heterogeneous Systems” major at IMT Atlantique
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