

# NATHAN HABIB

Software engineering student at EPITA  
Software Engineering Internship

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## PROFESSIONAL EXPERIENCE

### Software Engineering Intern

#### Norbert Health

Sep 2021 - Jan 2022

Paris

- Norbert Health is a startup making an ambient vital sign scanner.
- Prototyped contactless blood pressure monitoring.
- Built QA tools, adding metrics and data visualization for better development cycle.
- Docker, python, C++, Gitlab/CI/CD, Jira, Agile programming*

### Research Intern

#### Laboratoire de Recherche et Developpement de l'Epita, LRDE

Jun 2020 - Aug 2020

Paris

- Find the report here.
- Used convolutional neural networks to segment lesions in lung's CT-scans.
- Used explainable artificial intelligence to get more reliable results.
- python, Jupyter Notebooks, Tensorflow, LaTeX*

## PROJECTS

- Foo.bar coding challenge:** Coding challenge by Google, invitation based, and used for hiring.
- Practical MLOps:** Streamlined AI models to production using CI/CD and cloud providers with the book *Practical MLOps: Operationalizing Machine Learning Models*.
- Brain tumor segmentation:** Researched brain tumor segmentation (BraTs dataset) using transformers. The goal is to get better results and a more explicable model, still a work in progress.
- Building a quantum perceptron:** Research the use of quantum computing for the purpose of Accelerating Machine Learning. Find the report here.
- Introduction to neural networks:** Built a neural net capable of classifying boats, using python and Keras.
- Neural network:** Developed a neural network from scratch using C++ and Go.
- Python for Machine Learning:** Introductory class for Machine Learning, using python, we had to implement common ML algorithms classification, regression, clustering etc.
- Peaceland:** Big data project: generation, streaming, processing and storage of data being sent from drones flying over a city. Built using Scala.
- Functional Programming in Scala:** Studied Functional Programming using the book: *Functional Programming in Scala*.
- PING:** Built a fully functional IDE using Java.
- Chess:** Chess engine capable of playing against human players and other bots online, using C++.
- 42sh:** Built a shell conforming to the POSIX norm, using C.

## CORE COMPETENCIES

Scala Java Spark Kafka

python SQL shellscript

C++ C LaTeX bash

Git Linux macOS

aws Azure Docker

Jira Agile Methodologies

## EDUCATION

Master of engineering  
Software engineering and data science

#### EPITA

Sept 2018 - Jun 2023

### Study abroad

#### Oxford Brookes University, Oxford

Jan 2020 -- May 2020

### Baccalauréat Scientifique

#### Lycée du St Esprit, Beauvais

Sept 2015 - Jun 2018

## INFO

Nationalities :

- French
- American

French



English



## HOBBIES

- Rock climbing (15h / week)
- Guitar (mostly self-taught) for 5 years.
- Linux ricing (workflow and workspace customization under a Unix system)
- Learning about new technologies