Yanisse FERHAOUI

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Education

University Claude Bernard Lyon 1 — Villeurbanne, France
Master's in Computer Science, Image, Development, and 3D Technologies — *September 2023 – Present*

University Claude Bernard Lyon 1 — Villeurbanne, France
Bachelor's in Computer Science — *September 2020 – July 2023*

Lycée Blaise Pascal — Charbonnières-Les-Bains, France
Scientific Baccalaureate — *September 2016 – July 2019*

Experience

AI research internship — February 2025 – July 2025
Institut Pascal - University Clermont Auvergne — *Le Puy-en-Velay, France*
Topic: Language model integration in 3D Slicer.

- State of the art of research relevant to our problem.
- Implementation of the chosen solution.
- Development of a 3D Slicer module integrating the trained language model.
- Possible publication of an article in the Journal of Open Source Software.

PHP/Symfony Developer — May 2023 – June 2023
AMS Association Mantes Solidarité — *Mantes-La-Ville, France*

- Added multiple features:
  - Payment form.
  - Donation management interface for administrators.
- Regular presentation of work progress.
- Collaborative teamwork.

Projects

Mesh and computation geometry | *C++* — October 2024 – Present

- Elementary operations on triangular meshes (triangle split, edge flip).
- Implementing Lawsons' algorithm to obtain a "Delaunay" mesh.
- Transforming a point cloud into a triangular mesh.

Medical Imaging Research | *Python, Tensorflow, Keras* — January 2024 – June 2024

- Automatic segmentation of the diaphragm.
- Deep learning with Transfer Learning techniques.
- 3D volume reconstruction of organs.

LEGO Robots Retrieving Balls | *C++, EV3Dev, OpenCV, Git* — February 2024 – June 2024

- Programmed in C++ using the EV3Dev library.
- Used OpenCV for image processing.
- Combined 4 cameras to create an overhead view.

Drawing Prediction Website | *Python, Tensorflow, Keras, Flask, Git* — February 2023 – April 2023

- Explored deep learning for image classification.
- Used Tensorflow for architecture design and training.
- Displayed top 3 prediction percentages.

Turn-Based Fighting Game | *C++, SDL2, Git* — February 2022 – April 2022

- First project in game design and development.
- Coded in C++ using the SDL2 and JsonCpp libraries.
- Implemented both battle mode and story mode with map exploration.

Skills

Languages: C/C++, Java, Python, Matlab, SQL (Postgres), JavaScript, HTML/CSS
Frameworks: OpenCV, OpenGL, SDL2, QT, Symfony, Django
Developer Tools: Git, Docker, VS Code, QT Creator, PyCharm, IntelliJ
Libraries: Tensorflow, Keras, Pytorch, OpenCV, OpenGL, SDL2, NumPy, Matplotlib, Flask