

ÉLOI NAVET

PhD Candidate in Artificial Intelligence Applied to Neuroscience

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EXPERIENCE

PhD Candidate in Computer Science LaBRI - University of Bordeaux

 October 2024 – Present  Bordeaux, France

PhD in artificial intelligence applied to the differential diagnosis of neurological diseases using structural MRI. Development of Transformer models (ViT, Swin) for classification and interpretability. Supervised by Pierrick Coupé and Rémi Giraud. theses.fr/s396303

AI R&D Intern Thales

 March 2024 – August 2024  Toulouse, France

Development of an AI-based surrogate model for fast and accurate modeling of wildfire propagation.

Data Science R&D Intern QuadrX

 June 2023 – February 2024  Bordeaux, France

Terrain roughness analysis for wind gust studies to identify suitable locations for solar installations. Designed an AI workflow using PyTorch and Google Earth Engine to address the problem.

University Tutor Université Grenoble Alpes - DLST

 September 2022 – January 2024  Grenoble, France

Weekly tutoring sessions in mathematics for several groups of around twenty first-year students.

Research Assistant UGA – Laboratoire Jean Kuntzmann - IMAG (CNRS)

 May 2022 – July 2022  Grenoble, France

Supervised generation of oriented textures. Analysis of texture orientation using mathematical tools (Wavelets, Fourier Transform, etc). Implemented a convolutional neural network (CNN) to characterize local texture orientation.

PROJECTS

TIPE – Facial Recognition Using Principal Component Analysis

As part of the engineering entrance examination (TIPE), developed a Python algorithm implementing the Principal Component Analysis (PCA) method for algorithmic linear algebra applications.

Development of a C Graphical Interface Library

Group project aimed at developing a C library for creating graphical user interfaces. Managed user interactions, window customization, and optimized rendering.

Reproduction of Scientific Results

Implementation and reproduction of results from several scientific papers in artificial intelligence and fluid dynamics. Those not developed during internships are listed here: [1] [2] [3] [4] [5]

STRENGTHS

Motivated Curious Autonomous

Team-oriented Rigorous

Python C C++ R LaTeX

Git

LANGUAGES

French

English

Spanish

EDUCATION

Engineering School

Grenoble INP ENSIMAG - UGA

 2021–2024  Grenoble, France

Master's in Applied Mathematics

UFR IM2AG - UGA

 2022–2024  Grenoble, France

Master of Science

Aalto School of Science

 2023  Helsinki, Finland

Preparatory Classes (MPSI/MP)

Lycée Berthollet

 2018–2021  Annecy, France

INTERESTS

Skiing Running Boxing

Aerospace Physics and Astronomy

Mathematics Medicine