Guessous Saad

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About Me

Builder at heart with a passion for Generative AI and Deep Learning. I enjoy designing intelligent systems end to end, from models to full-stack applications, and thrive in startup-driven, fast-moving environments.

Education

ENSEEIHT　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　*Toulouse,France*
Master's Degree in Computer Science　　　　　　　　　　　　　　　　　　*Sept 2024 – Sept 2027*
- Strong focus on Computer Networks, Generative AI, Deep Learning , distributed Systems and infrastructure

Lycée Champollion　　　　　　　　　　　　　　　　　　　　　　　　　　*Grenoble, France*
Intensive 2-year undergraduate program in Mathematics and Physics　　　　*Sept 2018 – June 2022*
- Strong foundation in Mathematics, Statistics, and Physics
- Intensive training in problem-solving, analytical thinking, and modeling complex systems

Experience

AI intern　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　*Remote*
Neiji　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　*July 2024 – Sept 2024*
- Implemented and optimized complex RAG pipelines (late interaction, re-rankers) while building end-to-end full-stack features for AI-powered applications
- Contributed to product strategy and startup vision, collaborating on roadmap and technical decisions

Projects

QuickRAG

Built an Open-Source Toolkit for Simplifying RAG Pipelines
- Integrates indexing, retrieval, and advanced reranking for real-world applications (re-rankers and late interaction)
- Simplifies intelligent document search by levaraging Langchain, Ragatouille and Docling frameworks

Built a Transformer from scratch
- Implemented a Transformer from scratch following the architecture introduced in the paper "Attention is All You Need", including multi-head attention, positional encoding, and feedforward layers
- Built a full training and evaluation pipeline (tokenization, dataset preprocessing, and metrics), demonstrating strong hands-on deep learning skills

Built a ViT from scratch

A minimalist, from-scratch implementation of the Vision Transformer (ViT)
- Implemented a modular Vision Transformer from scratch in PyTorch, focusing on core components to understand how it works

LoRA Fine-Tuning – Medical Dataset

A minimalist, from-scratch implementation of the Vision Transformer (ViT)
- Fine-tuned a BERT model using Hugging Face Transformers library with LoRA and quantization techniques

Technical Blog – AI & Development

Writting technical posts and sharing hands-on insights and learnings
- Write in-depth posts on AI, Generative AI, NLP, and full-stack development, sharing insights from personal projects and experiments

Skills

Programming: Proficient with Python, NextJS , React , Java and Git; good understanding of Web, app development

Soft skills: Autonomy , Collaboration , Execution & Results-Driven and Problem-Solving

Languages: English (fluent), French (fluent), Arabic (native) , Spanish (Intermediate)

Extracurricular Activities

- Vice-President, Genius7 (N7 Entrepreneurial Association)
- Winner, TSE Hackathon
- Entrepreneurial & Business interests
- Football