Otmane El Bourki

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EXPERIENCE

AI Engineer
Jun 2023 – July 2024

Tetricks
Vincennes, France, (Remote from morocco)

- Developed and deployed in-house solution for request classification, cutting costs by 47%.
- Optimized, fine-tuned, Quantized Language Models for Enhanced Performance, inference by up to 3X.
- Built an email parser API for guest request processing, automating data extraction from emails and reducing processing time by 60%.
- Created a RAG chat-app for quick and accurate resolution of guest inquiries, reducing response time by 50%.
- Employed vision LLM for automated hotel room and feature categorization, leading to a 40% increase in efficiency.

ML Engineer intern
Mar 2022 – Jun 2022

Ibn Tofaïl CS Department
Kenitra, Morocco, Hybrid

- Designed a facial expression recognition system using the FER2013 dataset, achieving an accuracy of 85%.
- Utilized SOTA computer vision models and evaluated their performance, achieving an average precision of 90%.
- Improved model performance by 20% through data augmentation, and regularization techniques etc.
- Incorporated the model into a desktop app, resulting in a 30% increase in user engagement and satisfaction.

EDUCATION

M.S. in Artificial Intelligence
Nov 2022 – Feb 2024

Ibn Tofaïl University
Kenitra, Morocco

- Machine Learning, Deep Learning, Reinforcement Learning, Natural Language Processing, Computer vision.

B.S. in Mathematics and Computer Science

Ibn Tofaïl University
Kenitra, Morocco

- Data Structures, Algorithms, Operating Systems, Computer Architecture, Databases, Linear Algebra.

Digital Technology Architect

Mohammed VI Polytechnic University – Ecole 1337 – 42 network
Benguerir, Morocco

- Relevant skills: Algorithm Design , Problem Solving, Flexibility, Project Management, Teamwork, Optimization.

PROJECTS

End-to-End Kidney Disease Classification System | *Mlflow, DVC, AWS, Mlops*

- Utilized modern software development methodologies and tools including GitHub, MLflow, DVC, Dockerization, and AWS CI/CD for seamless deployment and efficient workflow management.
- Implemented best practices in MLOps to ensure reliable and scalable model deployment.

Article-Advertising Matching System | *LLM, LLAVA, Supabase, Keybert, Vertex AI*

- Implemented a program for matching articles with ads, utilizing KeyBERT to pinpoint relevant article keywords.
- Deployed a custom LLAVA on Vertex AI to extract ad-descriptive keywords.
- Ensured sensitivity and disallowed keyword compliance during the matching process.

Automated Newsletter Generator with CrewAI and Exa | *AI Agents, Exa, CrewAI, LangChain, Streamlit*

- Developed an automated system using CrewAI to manage a team of AI research agents for fetching and summarizing the latest news.
- Integrated Exa for advanced data aggregation and implemented LangChain and ChatGPT for generating concise and relevant summaries.
- Designed and built an intuitive GUI with Streamlit for easy interaction and management of the newsletter automation.

SKILLS

Programming Languages, Other: Python, Java, C, C++, SQL.
Frameworks: TensorFlow, PyTorch, Keras, Scikit-learn, Django, Flask, FastAPI, Streamlit, SQLite, PostgreSQL.
Libraries & Tools: NumPy, Pandas, Matplotlib, Seaborn, NLTK, spaCy, OpenCV, Hugging Face, Langchain, Langsmith, BentoML, LlamaIndex, Autogen, CrewAI, GitHub Actions, Docker, Kubernetes, Kubeflow, MLflow, DVC.
Platforms & Big Data Technologies: AWS (SageMaker), GCP (BigQuery, AI Platform, Vertex AI), Supabase.
MLOps: Model Optimization & Deployment, Continuous Integration/Continuous Deployment (CI/CD), Model Versioning & Experiment Tracking, Infrastructure Orchestration & Monitoring
Machine Learning Engineering: Deep Learning Architectures, Model Fine-tuning & Optimization, REST API Design & Development, Cloud Computing & Microservices.
Certifications: Practical Data Science by AWS, DeepLearning.AI TensorFlow Developer Professional Certificate
Spoken Languages: Arabic (Native), English (Full Professional Proficiency), French (Intermediate Proficiency)