# Souheil Bichiou

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## Education

### **National School of Computer Science**

Sep 2022 - Jun 2025

Master in Computer Science

Tunisia

#### Preparatory Institute for Engineering Studies of Nabeul

Sep 2020 - Jun 2022

Engineering Preparatory Program — Mathematics, Physics, and Engineering Sciences

Tunisia

#### Experience

Cloudsquid Feb  $2025 - Jun\ 2025$ 

Data Software Engineer Intern

Germany, Berlin

- Crafted an evaluation platform using ReactJS and FastAPI, achieving a precision score of 0.937 on data
  processed through the Cloudsquid pipeline, leveraging both collected and custom-created datasets
- Leveraged Large Language Models (LLMs) and Optical Character Recognition (OCR) to develop a solution to visualize bounding boxes of all extracted data, thus handling documents with 200+ pages
- Integrated the solution into the Cloudsquid platform using  $\mathbf{Golang}$ ,  $\mathbf{GoProfiles}$ , and  $\mathbf{ReactJS}$ , boosting data traceability by  $\mathbf{95\%}$

SkillMapper Sep. 2024 - Nov 2024

Data Scientist

France, Remote

- Engineered a sentiment analysis system for the SkillMapper platform to score courses and analyze reviews, helping users make informed enrollment decisions and increasing enrollment efficiency by 30%
- Benchmarked ML models and LLMs for course review scoring, achieving 0.92 accuracy with DistilBERT
- Provided users with the ability to assess a course's score before enrolling, reducing course dropouts by 25%
- Utilized **BERTopic** to extract dominant themes from **5,000**+ course reviews, offering insights into the most discussed topics and user concerns

Elyadata  $\operatorname{Jun}\ 2024-\operatorname{Sep}\ 2024$ 

Data Scientist Intern

Tunisia, Tunis

- Fine-tuned T5 model for Arabic summarization and question answering, reducing manual review time by 65%
- Applied LoRA (PEFT) and model quantization to fine-tune the model, updating only 0.47% of parameters
  and reducing memory and computational requirements
- Leveraged Weights & Biases to track and validate experiments, reducing result interpretation time by 70%
- Achieved an evaluation loss of 0.16 after 3 epochs and a ROUGE-1 score of 0.72

#### **Projects**

Resume Skill Extractor And Scorer | Source Code

NER | Scikit-learn | Flask | Keras

- Enhanced resume screening process by using **BERT-base-cased** for **Named Entity Recognition (NER)** to extract skills, experiences and other key information achieving a **92**% accuracy in identifying relevant entities
- Scored CVs based on their skills and experiences using a Sequential Model achieving a training loss of 0.14
- Enhanced candidate selection, boosting accuracy by 35% and cutting manual screening time by 75%.

# VideoCode Extractor | Source Code

FastAPI | ReactJS | OpenCV | LangChain

- Designed a user-friendly interface with FastAPI backend and ReactJS frontend, enabling users to extract and retrieve code from any frame of local or YouTube videos, reducing manual code retrieval time by 80%
- Implemented a frame-by-frame analysis system with OpenCV, boosting video processing speed by 50%
- Integrated a chatbot using LangChain, enabling video code queries and reducing search time by 60%.

#### Technical Skills

Languages: Golang, Python, C/C++, Java, SQL (Postgres), JavaScript, HTML/CSS

Frameworks: ReactJS, Node.js, Flask, FastAPI

Developer Tools: Git, Docker, AWS, Postman, BitBucket, Kubernetes, Apache Spark, Apache Airflow

#### Languages

French (B2) | English (B2) | Arabic (Native)