BOUCHAIB BAINE
Double-degree student in Engineering and Data Science

CONTACT INFORMATION

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- Choaibe-A

TECHNICAL TOOLS

Programming Languages:
- Python, C, JAVA, SQL
- React-Native, HTML5, CSS3

Libraries and Frameworks:
- Pandas, NumPy, Pyspark
- Seaborn, plotly , Foluim, Dash
- Requests, Selenuim, beautifulsoup,
- Scikit-Learn, Tensorflow, Keras, NLTK, Shap, Hugging Face 🤗, LangChain🦜

Data Enginnering:
- Data visualization
- Data Scraping
- Feature extraction
- Feature engineering
- Machine learning
- Deep learning
- NLP
- Computer Vision

Software and Tools :
- Git
- Google Cloud Platform: BigQuery
- Latex
- Excel

LANGUAGES

- Arabic: Native
- French: DALF C1
- English: TOEIC B2 (Score: 815)

CERTIFICATES AND LICENSES

- Apprenez à programmer en C
- Statistics with Python
- Learn Python Basics for Data Analysis
- Python for Data Science, AI & Development
- Basic Image Classification with TensorFlow
- Build a BI Dashboard Using Google Data Studio and BigQuery
- Machine Learning Engineering for Production (MLOps)

INTERESTS AND HOBBIES

- Mangas
- Handball
- Chess
- Travel

EDUCATION

École Centrale Lille | September 2023 onwards
- **Msc in Data Science**: Fundamental notions for data science, Machine learning and statistical learning

École Centrale Casablanca | 2020-2022
- **Engineering studies**: Python, Object-Oriented Programming , Artificial Intelligence, Optimization, Image Processing, Dynamical Systems, Statistics, Probability, Leadership and Innovation, Project Management, and Operations Management

ESSEC BUSSINESS SCHOOL | 2022
- **Academic exchange**: Business Plan, Geopolitics, African Economies, International Business Management

Faculty of Science and Technology, Mohammedia | 2018 - 2020
- **University diploma in Science and Technology Studies**: Mathematics, Algorithmics and Programming, C language, Databases management

Lycée Moulay Youssef Rabat | 2017 - 2018
- **Scientific Baccalaureate**: Mathematics and Engineering Sciences

PROFESSIONAL EXPERIENCE

ESG Data Analyst intern (6 Months)

Natixis IM - Groupe BPCE | March 2023 - September 2023

Anticipation of ESG controversies through social media and news data
- Testing different data sources: statistical approach + text analysis with LMMs using LangChain
- Data processing: Creating KPIs to facilitate decision-making on data quality
- Data visualization: Creating a dashboard to visualize ESG indicators per company
- Sentiment analysis: Using transformers on news articles

Data Scientist intern (6 Months)

M2M GROUP | September 2022 - March 2023

Fraud detection in banking transactions using Machine Learning
- Anomaly detection: Unsupervised ML models (isolation forest, autoencoder)
- Customer behavior modeling: Feature engineering, aggregation strategies
- Implementation of a fraud cost matrix
- Results analysis: Data visualization (EDA, PCA analysis)

Strategic assistant to the CEO intern (4 Months)

IA4YOU | March 2022 - June 2022.
- Feasibility study of AI projects
- Designing KPIs for a helpdesk application
- AI development: Data augmentation using Generative Adversarial Networks (GANs)

Digital Transformation Intern (3 Months)

AXA Assurance | June 2021 - September 2021.

Digitalization project: Dematerialization of the amicable report process
- Designing a data relationship model: DBMS, Entity-Relationship Diagram (ERD), SQL
- Development of a Cross-Platform application: React-Native

ACADEMIC PROJECT

Innovation Project: Entrepreneurship in Africa
ESSEC BUSSINESS SCHOOL | March 2022

Optimal selection of airport sites: AI and decision support
- Extraction of airports data: Data scraping
- Web data reliability: Data visualization and clustering (EDA, K-Means)
- Airport scoring: Regression models

Scientific project: Monitoring 4.0
École Centrale Casablanca | September 2021 - January 2022

Writing a scientific article: Machine Learning approach for predictive maintenance
- Utilizing engine vibration data: Feature extraction (signal processing)
- Comparison of classification models: SVM, K-NN, Random Forest, Naive Bayes, ANN
- Model evaluation: Accuracy, F1 score, ROC

Learning by Doing Project: Agriculture 4.0
École Centrale Casablanca | Septembre 2020 - July 2021

Optimization of the weeding process: Weed-removing robot
- Increase image database: Data augmentation (image processing algorithms)
- Weed detection: Image classification model (Convolutional Neural Network - CNN)