MONCEF BOUSSELAT

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EDUCATION

Master's degree in Networking and Cloud Computing   Sep. 2023 – Jul. 2025
Lorraine University | Leeds Beckett University | Lulea Technical University   *Nancy, FR | Leeds, UK | Skelleftea, SE*
- Selected among 23 out of 2000+ applicants for a fully-funded Erasmus Mundus scholarship
- Pursued a joint master's degree between Lorraine University (France), Leeds Beckett University (UK), and Lulea Univestiry of Technology (Sweden). Currently completing studies with thesis in France, focusing on blockchain systems and cloud deployments.

Master's degree in Data Science and AI   Sep. 2018 – Jul. 2023
National Polytechnic School   *Algiers, Algeria*
- Selected from the top 10% students of the country's preparatory schools through a national contest
- Graduated with a grade of 17.5/20 and a "very good" mention

EXPERIENCE

Full-Stack Developer Intern   Jan 2023 – Jul 2023
Schlumberger   *Algiers, Algeria*
- Engineered a REST API, enabling the import/export team to store 1000+ daily transaction records on a private blockchain
- Developed a full-stack web application using Flask, VueJS, and Hyperledger Fabric; containerized the application using Docker and orchestrated deployment on AWS ECS, ensuring scalability for 500+ users
- Solved the problem of lost imported assets which was costing up to 4x of the assets' original values in penalties

Data and AI Intern   Oct. 2022 – Jan. 2023
Ericsson   *Algiers, Algeria*
- Implemented an image-recognition models using YOLO to assist field workers with device identification, achieving a classification accuracy of over 85%
- Trained a convolutional autoencoder for image denoising in PyTorch, which reached a 99% reconstruction accuracy on the MNIST dataset

Data Analyst Intern   May. 2022 – Jul. 2022
BH Advisory   *Algiers, Algeria*
- Conducted a monitoring mission on the construction materials market to identify price and availability trends and patterns
- Developed web scrapers to automate data collection from company websites and showcased it on a VueJS dashboard

PROJECTS

Benchmarking GPU Energy Consumption for Training Neural Networks | *Python, PyTorch, Bash*   Apr. 2024
- Wrote a GPU profiling tool, which runs training tasks for 25+ hyper-parameters combinations to explore the effect of each on energy consumption
- Achieved best accuracy in the parameter pool with 20% energy savings

NEAT algorithm applied to video games | *Python, NEAT-Python, Pygame* | GitHub   Oct. 2022
- Reconstructed 1:1 replicas of popular games such as Flappy Bird and Snake using Pygame
- Trained agents leveraging neuro-evolution algorithms (NEAT), performing better than 100% of human players tested against

Wildfire 3D Simulator | *Unity, C#, Python, Google Earth Engine* | GitHub | ResearchGate   Dec. 2021
- Collected and segmented Google satellite imagery with machine learning (k-means) and reconstructed the 3D terrain in Unity
- Simulated forest wildfire spread on a 100km² area through a semi-empirical cellular-automata model

Focus AI | *Python, PyTorch, OpenCV, MediaPipe* | GitHub   Nov. 2021
- Tuned a face tracking deep learning model for focus monitoring, notifying users' when focus loss is detected
- Logged results showed up to 50% increase in focus and productivity of monitored users

Online Store scraper | *Python, Selenium* | GitHub   Apr. 2021
- Built web scrapers for several online stores (Amazon, CDiscount, Materiel.net) with price logging and comparison over time
- Multi-site comparison offered an average of 15% in cost savings on a selection of products

ADDITIONAL

Programming Languages: Python, C/C++, C#, SQL (MySQL), PHP, JavaScript, HTML/CSS, BASH
Cloud & DevOps Tools: AWS (EC2, S3, VPC, CloudWatch, ECS, CloudFront), Terraform, Docker, Kubernetes (MiniKube), Git, GitHub (GitHub Actions), Prometheus
Developer Tools: VueJS, Node.js, Flask, Laravel, ExpressJS
Data Science & Machine Learning Tools: NumPy, Pandas, Matplotlib, Seaborn, PyTorch, Scikit-learn, Tensorflow, Anaconda
Awards and Certifications: Arctic Challenge Hackathon Winner (2024), Algerian Engineering Competition Winner (2021), Google DevFest 21 Hackathon Winner (2021)
Languages: English (C2), French (C2), Arabic (Native)