

Souhail El Aissaoui

+33605600361 • souhail@scaleforce.cloud • linkedin.com/in/souhailelaissaoui

AWS Certified AI & Cloud Solutions Architect | Ex-AWS | Freelance Consultant

Expertise:

- Enterprise AI/ML Solutions Architecture
- Gen AI & LLM Implementation (Amazon Bedrock, SageMaker)
- MLOps & LLMOps Platform Design & Deployment, deployed on Cloud, or on-premise.

What I Bring:

- 7+ years of experience in AI/ML and cloud solutions
- Deep expertise in AWS services and best practices
- Strong background in both technical implementation and business strategy
- Track record of successful projects with major financial institutions

EDUCATION

Msc in Data Science

École Polytechnique

Msc in Data Science for Business

HEC Paris

Bsc in Engineering

EPFL

WORK EXPERIENCE

Crédit Agricole Assurances (Contracted by AWS Professional Services) 05/2024 - Present Lead AWS Generative AI Architect Paris, Île-de-France, France

- Provided strategic guidance on AI and cloud adoption, advising on the architecture of end-to-end AI solutions.
- Developed and deployed an MLOps platform to support scalable AI initiatives.
- Led the deployment on AWS of two AI projects into production, including intelligent document processing for insurance claim handling.
- Fine-tuned AI solutions to meet specific customer needs and optimized them for the operational environment.
- Trained internal teams on AWS & AI technologies and best practices, ensuring knowledge transfer and self-sufficiency.
- Tech Stack: AWS SageMaker, Amazon Bedrock, AWS Step Functions, SageMaker Pipelines, Jenkins, Terraform, Amazon S3, AWS Lambda, Amazon CloudWatch.

Amazon Web Services (AWS) 08/2020 - 04/2024 AI/ML Cloud Architect Paris, Île-de-France, France

- Led strategic cloud adoption projects for Financial Services clients, driving AI/ML architecture, implementation, and production deployment. Delivered large-scale MLOps platforms, optimized AI workflows, and enabled real business impact.
- **NatWest Group:** Deployed a large-scale MLOps platform to streamline ML workflows across 40+ teams in Marketing, Finance, and Risk Management.
- Standardized model development, training, and deployment, reducing environment provisioning from weeks to hours.

- Integrated AWS CodePipeline, CodeBuild, and Step Functions for end-to-end automation, enhancing model governance and traceability.
- **Strategic Account (Tech)**: Built and deployed Kubernetes-based MLOps platforms for one of AWS's largest strategic accounts, standardizing ML workflows across business units.
- Tech: Ray (distributed model training), Amazon EKS, Kubeflow, MLflow, Prometheus, Grafana.
- Solution: Scalable and automated ML lifecycle management leveraging Kubernetes.
- **Santander**: Supported ML deployment for financial analytics and operational automation.
- Tech: AWS SageMaker, AWS Lambda, Apache Airflow, PyTorch, TensorFlow.
- **MUFG Bank**: Designed and deployed intelligent document processing, reducing manual effort by 80%.
- Tech: AWS Textract, AWS Comprehend, SageMaker, Lambda, Step Functions.
- **Allianz Germany**: Led a 12-month Data & DevOps engagement, building a self-service data science platform serving 50+ business units, reducing Kubernetes cluster creation time from 2 weeks to 1 hour.
- Tech: AWS EMR, Databricks, Terraform, AWS Glue, Athena, Redshift.
- **Major European Bank – Fraud Detection**: Delivered an AI-powered surveillance & fraud detection system with 90% accuracy, unlocking a \$2M revenue opportunity.
- Tech: AWS SageMaker, XGBoost, Scikit-learn, Apache Kafka, DynamoDB.
- • Published MLOps & DevOps artifacts, presented at internal and external (Gen)AI conferences.
- • Contributed to AWS IP, supported recruitment, mentoring, and graduate programs.

Wheel the World

07/2020 – 08/2020

Full Stack Engineer (Contract)

San Francisco Bay Area

- Collaborated with cross-functional teams to optimize accessibility features for users with disabilities by building a crowdsourced platform that gathers detailed accessibility data from travel operators worldwide.
- Architected and developed a scalable data processing application using React.js for the frontend, implementing responsive UI components and Redis for cache management.
- Engineered a robust Python Flask REST API backend, handling complex data transformations and implementing authentication middleware.
- Containerized the application using Docker and orchestrated deployment on AWS ECS, setting up CI/CD pipelines with GitHub Actions that reduced deployment time by 60%.

Natixis Bank

06/2020 – 07/2020

Data Scientist & Strategist (Contract)

Paris, Île-de-France, France

- Led the development of an innovative cross-selling analytics solution to identify business opportunities across Trading & Sales divisions, resulting in 15% increase in lead generation potential.
- Conducted comprehensive stakeholder analysis and feasibility studies with IT, Data Science, and Business teams to validate solution architecture and implementation roadmap.
- Developed proof-of-concept using Python for opportunity identification algorithm, integrating CRM data and customer satisfaction metrics to enhance sales team effectiveness.
- Designed and validated implementation strategy for cross-selling tool deployment, including change management plan and user adoption framework for commercial teams.

Ecole Polytechnique Executive Education

05/2020 – 06/2020

Innovation Consultant (Contract)

Paris, Île-de-France, France

- Worked for the Executive Education department on a market study on tech & innovation certifications for executives.
- Conducted comprehensive market analysis of executive education programs across top-tier institutions, focusing on technology and innovation certifications, evaluating pricing strategies, curriculum structures, and delivery methods.
- Led strategic research initiatives to identify emerging trends in executive tech education, particularly examining programs incorporating AI, digital transformation, and innovation management frameworks.
- Developed detailed recommendations for program structure and content based on competitor analysis, incorporating elements of innovation consulting methodologies and industry best practices.

ODDO BHF

AI Strategist (Contract)

02/2020 – 04/2020

Paris, Île-de-France, France

- The projects focused on automating manual processes and enhancing decision-making capabilities through AI/ML, specifically for ODDO BHF's real estate and banking portfolio management teams.
- Led strategic analysis of AI/ML opportunities for two major funds (Real Estate and Banking), conducting detailed assessment of data sources including Bloomberg, Factset and proprietary databases to identify automation and prediction opportunities.
- Designed AI-powered dashboard mockups and data visualization solutions to help fund managers track key metrics, including automated missing data detection and real-time market sentiment analysis.
- Developed proof-of-concept for natural language processing (NLP) news monitoring system to automatically detect market trends and investment opportunities across multiple languages and sources.
- Evaluated and recommended AI technology vendors and platforms through detailed technical analysis and alignment with ODDO BHF's infrastructure requirements.

Roland Berger

Data Science Consultant

03/2019 – 09/2019

Paris 08, Île-de-France, France

- **Luxury & Cosmetics Industry:** Led development of a customer segmentation solution analyzing 500K+ social media posts using NLP and computer vision, enhancing targeted marketing strategies.
- **Football League:** Developed machine learning models to monitor player performance and predict rising football talents with 80% accuracy for a top-tier football club, driving data-informed scouting decisions.
- **Healthcare & Pharma:** Architected an automated AWS data pipeline for real-time data collection, reducing manual data preparation time by 70%, optimizing project timelines.
- **Internal:** Created reusable data science code integrated into Dataiku's collaborative platform, developing drag-and-drop analytics tools for HR and empowering non-technical consultants to perform advanced analysis, reducing time-to-insight by 60%.

Artémis Gestion SA

Full Stack Developer (Contract)

03/2018 – 08/2018

Lausanne Area, Switzerland

- Architected and developed a comprehensive portfolio management dashboard using React.js for the frontend and Node.js for the backend, enabling real-time tracking of project metrics and financial data.
- Implemented automated data visualization features including performance indicators, budget tracking, and resource allocation metrics, resulting in a 40% reduction in manual reporting time.
- Designed and integrated RESTful APIs to connect with multiple database systems, ensuring seamless data flow between frontend interfaces and backend services.

Nestlé Chair in Energy Metabolism

Data Scientist & Research Assistant (Contract)

02/2018 – 08/2018

Lausanne, Vaud, Switzerland

- Worked in Prof. Auwerx laboratory to design and implement a high-performance SQL database architecture for processing 10+ petabytes of biological research data annually.
- Developed a comprehensive data pipeline using Python's Biopython libraries for genetic sequence manipulation and statistical analysis.
- Leveraged R's biostatistical capabilities for advanced statistical modeling and visualization of biological data.

EPFL (École polytechnique fédérale de Lausanne)

Teaching Assistant (Programming & Mathematics)

09/2016 – 08/2018

Lausanne Area, Switzerland

- Led weekly exercise sessions for Analysis II and Programming (C++), delivering interactive tutorials and practical demonstrations to groups of 30 students, resulting in improved student comprehension and engagement.
- Provided comprehensive academic support through regular office hours, offering one-on-one mentoring and clarifying complex mathematical concepts including differential calculus, Taylor's formula, and vector analysis.

- Managed course assessment responsibilities including grading assignments, programming projects, and examinations while maintaining detailed records and providing constructive feedback.
- Collaborated with faculty to develop supplementary teaching materials and programming examples, ensuring alignment with course objectives and supporting both theoretical and practical learning components

Vaudoise Assurances

10/2017 - 12/2017

Tech Strategist & Software Developer (Contract)

Lausanne Area, Switzerland

- Developed and implemented a fleet management and claim processing system that reduced handling time by 30%, processing hundreds of claims per month while maintaining high accuracy in validation and settlement procedures.
- Engineered a custom contract analysis tool that streamlined the verification of complex insurance policies, reducing manual review time from hours to 20 minutes per case and enabling real-time cross-referencing with multiple databases.
- Established an integrated document processing workflow that automatically extracted and validated data from multiple formats including PDFs, scanned documents, and digital forms.

CERTIFICATIONS

AWS Certified Data Analytics – Specialty

09/2021

Amazon Web Services (AWS)

AWS Certified SysOps Administrator – Associate

01/2021

Amazon Web Services (AWS)

AWS Certified Developer – Associate

11/2020

Amazon Web Services (AWS)

AWS Certified Solutions Architect – Associate

10/2020

Amazon Web Services (AWS)