Aya SKHOUN

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EDUCATION

2020-2024   **ECOLE CENTRALE DE LILLE – TOP FRENCH GRANDE ECOLE ENGINEERING SCHOOL**   Lille, France
Master of Science (MSc) in General Engineering – Major in Energy and Finance
Relevant coursework: Applied Mathematics, Energy Markets, Project Management, Corporate Finance, Prescriptive Analytics and Optimization, Electricity for Sustainable Habitat, High Technology Start-Ups …

2023-2024   **UNIVERSITE DE LILLE - IAE**   Lille, France
Master's Degree in Quantitative Finance
Relevant coursework: Financial Theory, Stochastic Calculus, Accounting and Finance, M&A Principles, Asset Pricing and Hedging, Behavioral Finance, Microeconomics of Banking, Machine Learning and VBA

2018-2020   **LYCEE SAINT-LOUIS - CLASSE PREPARATOIRE (PCSI/PC*)**   Paris, France
Bachelor of Science (BSc) in Physics and Mathematics
Advanced undergraduate coursework leading to the examination for entry to French Engineering Schools

2018   **LYCEE DESCARTES, AEFE - BACCALAUREAT**   Rabat, Morocco
Scientific French High School National Degree, International Section
Obtained with the highest honors (Mention Très Bien 18,5/20)

WORK EXPERIENCE

May 24   **GUIDEHOUSE**   Paris, France
(1y 5m, ongoing)   ***Consultant – Communities, Energy & Infrastructure***

- Supported decarbonization strategies for major European utilities, including EDF and TotalEnergies, with a focus on BESS, CCUS, Demand Response, flexibility and low-carbon R&D over several projects
- Assessed flexibility potential for Google data centers in Europe, evaluating technical, regulatory, and market factors to identify new demand response and grid service opportunities.
- 3 Deep dives in energy subjects: High power charging business models, Wind resources & flexibility, Climate change impact on solar yield
- Contributed to 10+ proposals (BMWK, Engie, EBRD, Natran, TotalEnergies, Voltalis…), supported RFIs on DSR and IoT and developed a climate adaptation offer aligned with PNACC3, PPE, SNBC and CSRD
- Facilitated internal knowledge sharing: organized France's 2025 strategic session, moderated Excel training for 15 colleagues and reviewed French materials for Suppliers LOCT seminars (1900+ company participants)

Mar 23-Jul 23   **ORANGE FRANCE**   Paris, France
(5 months)   ***Data Scientist within the DSD2C department - Internship***

- Conducted research in automatic machine learning models to automate and optimize the feature engineering process while handling massive amounts of data (hundreds of billions of records) and applied my findings to the Customer Satisfaction team (DSD2C) use cases (e.g., better predict the clients' needs using the data collected from their Wi-Fi routers, predict the nature of devices used by the client etc.)
- Worked jointly with the INNOV team to deeply understand and improve one of Orange's internal applications
- Contributed to one of Orange's strategic projects to boost its ranking among customers in the telecommunications' market

Sept 22-Feb 23   **MAZARS**   Paris, France
(6 months)   ***Financial Auditor - Internship***

- Performed reviews of financial data (records, balance sheets, P&L) and ran various tests and controls
- Analyzed and examined financial reporting systems and internal control systems of large companies: Safran, Orpea, Procapital - Crédit Mutuel Arkea, Dexia Crédit Local, Figaro Media, Dassault Media, IPED. Accounts worth ~ €100M - €10B

Jan 21-Feb 21   **STEP UP SOLUTIONS / STEP UP AIR (START-UP)**   Copenhagen, Denmark
(1 month)   ***Intellectual Property Engineer – Internship***

- Conducted deep research, collected and classified 50+ existing patents of products similar to StepUp's invention, leading to a database summing up the state of the art and an initial patent draft for the invention

LANGUAGE & IT SKILLS

- Languages: French (native), English (bilingual), Arabic (native), Spanish (intermediate)
- IT: Microsoft Suite (Excel, PowerPoint, Word, Copilot), SQL, Python, C
- Certifications: TOEIC 970/990, Dataïku Data Science track, Kaggle ML courses, Yale's Financial Markets

ACTIVITIES & INTERESTS

- Tutoring: 300+ hours of mathematics & physics lessons to high school students in Paris and Lille
- Volunteering: Centrale's Bureau des Sports, Finance & Consulting club, Photography club
- Running
- Photography