ALEXIS BALAYRE

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Cranfield University

PERSONAL STATEMENT

A dynamic and versatile Data Engineer about to graduate with a dual degree from ISEP and Cranfield University in Data Intelligence and Data Engineering. Excels in Artificial Intelligence, Big Data and Blockchain, showcasing advanced analytical, communication and organisational prowess achieved through intense academic study and personal projects. He is passionate about harnessing the power of transforming raw data into actionable insights to make informed decisions. Fluent in French and English, he is ready to bring a comprehensive set of technical skills and an international perspective to the forefront of the Data Engineering and Blockchain fields. Currently actively seeking a placement as a Machine Learning Engineer from September 2024.

KEY ACHIEVEMENTS

- Triumphed in multiple hackathons, winning over $5,000 for developing Blockchain solutions that address critical industry challenges, demonstrating a talent for innovation and technical skills in competitive environments.
- Enhanced a decentralised asset management tool at CoinShares, contributing to a platform that now efficiently manages over $170,000 in assets, showcasing technical expertise and innovation in blockchain solutions.
- Spearheaded the Blockchain Lab at Garage ISEP, leading workshops and establishing strategic partnerships, notably with the Paris Blockchain Week Summit.

EDUCATION

MSc Computational Intelligence for Data Analytics, Cranfield University, UK   September 2023 – September 2024

- **Modules:** Artificial Intelligence, Machine Learning and Big Data, Cloud Computing, Small-Scale Parallel Programming, High Performance Technical Computing, Advanced Java and Python, and IoT.
- **Projects:** Carrying out an advanced data analysis project leveraging Apache Spark to process and analyse the dataset of COVID-19 cases worldwide. Development of a project operating Apache Spark, Amazon Timestream, EC2, and Grafana to ingest, process, store and distribute large volumes of data from IoT sensors, providing an overview of air quality in a given geographical area and at a given time.

MSc Data Intelligence, ISEP, Paris, FR   September 2019 – September 2024

- **Modules:** Artificial Intelligence, Machine Learning, Big Data & databases, Tools for BI, Data Analysis, Web and knowledge management, Digital Transformation Consulting, and Management of IT.
- **Group Projects:** Creation of a Machine Learning model capable of identifying the breed of a ladybird from an image with 98% accuracy, using Scikit-Learn. Set up a pipeline using Apache Kafka, Apache Spark, Elasticsearch and Kibana to calculate and visualise the relationship between financial news sentiment and stock market prices. Creation of KPI dashboards in PowerBI for an insurance company to show the proportion of 'at risk' cars currently insured.

International Academic Semester, Czech Technical University, Prague, CZ   February 2021 – June 2021

- **Modules:** Telecommunication Systems and Networks, Introduction to Cyber Security, Environmental Engineering, Discrete mathematics, and Programming.
- **Projects:** Creation of a Blackjack game in Java. Creation of sorting and calculation algorithms in Java, won the competition for the fastest computer programme. Design of a safe, reliable, and low-cost SDH transmission network across several Czech cities. Creating a file encryption program with OpenSSL. Configuring a secure web server on Linux.

PROFESSIONAL EXPERIENCE

Garage ISEP, Paris, FR, Blockchain Lab Vice President   **July 2022 – September 2023**

Garage ISEP stands as the premier student innovation hub in France, boasting over 80 active members.

- **Leadership:** Steered the Web3 division, leading a team of 10, and fostered an environment of innovation and collaboration.
- **Initiatives:** Spearheaded workshops and conferences, securing partnerships with tech giants like Ledger, IBM, and Capgemini. Played a pivotal role in significant events such as the Paris Blockchain Week Summit, NFT Paris, and VivaTech.
- **Innovation:** Pioneered the development of a decentralised voting protocol utilising Zero-Knowledge proof technology, showcasing technical leadership and a commitment to blockchain advancements.

CoinShares, Paris, FR, Blockchain Developer Intern   **September 2022 – January 2023**

Europe's leading digital asset manager, CoinShares, manages over $4B, marking a frontier in alternative asset management.

- **Enhancement:** Focused on refining a decentralised asset management tool, elevating its capability to manage assets exceeding $170,000 through rigorous performance and security optimisations.
- **Collaboration:** Worked alongside the lead software engineer in DeFi's London team to roll out innovative blockchain solutions, enhancing trading processes significantly.
- **Research and Development:** Conducted extensive research on blockchain technologies, contributing valuable insights to the company, including the creation of a private blockchain using the Cosmos SDK.
- **Technical Solutions:** Developed NestJS APIs to streamline backend operations and implemented Docker containerised applications on AWS, boosting deployment efficiency and system resilience.

SKILLS, INTERESTS AND EXTRACURRICULAR ACTIVITIES

- **Languages:** Native French speaker with fluency in English; basic knowledge of Spanish.
- **Technical Proficiency:** Advanced knowledge in AI, Machine Learning, Big Data, and Blockchain. Skilled in programming languages including Python, SQL, TypeScript, C++ and Solidity.
- **Tools:** Git, Docker / Kubertetes, AWS, Spark, Kafka, Airflow, TensorFlow, Keras, Pytorch, Scikit-Learn, OpenMP, CUDA, Elasticsearch, Kibana, Grafana.
- **Interests:** Avid enthusiast of Blockchain and AI innovations. Passionate about cultural immersion through international travel (+20 countries visited). Enjoys active pursuits such as running, climbing, mountain biking, and alpine skiing.