# Jean Charles Kouame'

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I am well-versed in data analysis, having gained hands-on experience working with diverse datasets of varying sizes and formats. My background in mechanical engineering and statistics provides me with a solid foundation for mathematical and analytical thinking. I acquired hands-on experience in machine learning algorithms and architectures, as well as software development through the completion of various personal projects.

## SKILLS

- Programming skills: Python
- Data analytics tools: SQL, R, SAS, Spark, Tableau
- Experience building a range of ML algorithms and neural networks
- Data Science libraries: PyTorch, TensorFlow, Keras, Scikit-Learn, NumPy, Pandas
- Web development: HTML, CSS, Flask, FastAPI
- Cloud and other platforms: AWS, Databricks
- CI/CD tools: Git

## WORK EXPERIENCE

**Data Analyst Pricing**: Markerstudy Insurance, Haywards Heath, UK — Aug 2023 – Present

I am supporting evaluating claims risk costs by maintaining and creating metrics relevant to our KPIs:

- I created Excel reports by extracting data from SAS, pivoting tables, and generating charts to obtain pertinent information about business segmentation. These reports facilitated decision-making and resulted in cost savings of 5-10% for the private car business line.
- Integrated functionalities into SAS for automating feature engineering tasks, resulting in an improved and stabilised reporting flow. This integration contributed to increased efficiency and reliability in the overall workflow, enhancing productivity.
- Contributed to the development of pricing models generating more accurate insights on most impactful risk features.

**Business Analyst:** QAD Inc., Milan, IT — Jul 2017 – Sep 2021

Supported the implementation of SaaS applications in manufacturing environments:

- Performed comprehensive business reviews, authored technical documents, and conducted rigorous testing of new features.
- Developed and delivered training classes to groups of up to 5 individuals, resulting in successful go-lives and a faster transition from manual to automated processes.
- Optimised data retrieval through the design of relational tables, leading to a 20% reduction in data processing time. This significantly contributed improving operational efficiency.

## EDUCATION

**MSc Statistics with Data Analytics with Distinction** — Sep 2021 - Dec 2022

- Brunel University of London, London, UK
- Courses: Machine Learning Fundamentals, Quantitative Data Analytics, Time Series modelling

**BSc Mechanical Engineering** — Sep 2011 - Feb 2017

- Polytechnic University of Milan, Milan, IT
- Courses: Linear Algebra, Calculus, Numerical Methods

## PERSONAL PROJECTS

### Generative Adversarial Network (DCGAN) *Open ↗*

Generated synthetic images with the purpose of evaluating the capabilities of a DCGAN model. The implementation has followed the original paper.

- Impact: Convolutional networks, Python, PyTorch

### Face Detection, Landmarks and Emotion Recognition, WebApp *Open ↗*

Web application built with Javascript and HTML that utilises face-api.js, a Javascript API endpoint containing a face recognition model. By accessing the webcam's video stream, it performs real-time face recognition using the Tiny YOLO algorithm, which is capable of face detection, landmarks identification, and emotion recognition.

- Impact: Object recognition, APIs, HTML, Javascript, HTML

### Loss functions in Deep Learning (Master Dissertation) *Open ↗*

Discussed principles of machine learning and deep learning. I experimented the effects of different loss functions on a convolutional neural network performing image classification of handwritten digits.

- Impact: Machine learning, Deep learning, Neural networks, TensorFlow

### Stocks analysis tool, WebApp *Open ↗*

A web application developed using Python, FastAPI, HTML, and sqlite3 for database functionality. The app displays stock prices from the NYSE and provides trading ideas leveraging the TA library for technical analysis. Its primary feature is performing technical analysis on stocks stored in the database.

- Impact: Python, API back-end development, SQL databases, Financial analysis

## AWARDS

**John Gregory Memorial Prize, Brunel University of London.** — Oct 2022

"The best performing student on any MSc programme offered by the Department of Mathematics".