Adam Jaamour

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Senior Data Scientist | Machine Learning Researcher | Software Engineer

Work Experience

causaLens — London, UK *(hybrid)*
Senior Data Scientist — 2023–Present

- Conducting end-to-end projects for clients using our proprietary causal AI tools and packages (causal discovery, causal modelling, decision intelligence engines and dashboard web apps).
- Participating in user research and brainstorming new functionality for our platform + testing newly implemented functionalities.

NewDay — London, UK *(hybrid)*
Data Scientist — 2021–2023

- Successfully built stable and explainable machine learning models applied in the areas of credit risk, fraud detection and collections that increased NewDay's profits.
- Leading the development of the team's internal ML library for accelerated and mainstreamed model development, prompting faster delivery of projects.
- Ensuring the robustness and relevance of our models deployed in production by monitoring their performance and stability to recommend when it would be fit to rebuild them.

Scuderia Toro Rosso Formula 1 Team — Bicester, UK *(on-site)*
Software Engineer Placement — 2017–2018

- Developed and stabilised the front-end and back-end of a large, single-page, web application in Python, Django, Django REST, KnockoutJS, PostgreSQL and Docker; allowing terabytes of weekly aero simulation data to be reliably delivered to users.
- Implemented new tools for visualising and interacting with the aero data, resulting in new car parts being designed to ultimately make the car go faster.

Education

University of St Andrews — St Andrews, UK
MSc in Artificial Intelligence — 2019–2020

- Achievement: All-time top grade of Machine Learning module since its inception, with a 99% average.
- Grade: 88.9% *(Distinction)* - Dean's List Award
- Modules: AI Principles *(probability/statistics, neural networks, search algorithms)*, AI Practice *(Python/Java projects)*, Machine Learning, Language and Computation *(NLP)*, Object-Oriented Programming *(Java projects)*, Information Visualisation *(Tableau, D3.js)*, Information Security Management, Web Technologies.

University of Bath — Bath, UK
BSc Computer Science — 2015–2019

- Grade: 71.58% *(First-Class Honours)*
- Modules: Computer Vision, Parallel Computing *(C, MPI, threading)*, Intelligent Control and Cognitive Systems, Networking, Safety-critical Computer Systems, Data Structures and Algorithms, Pattern Matching *(classifiers, regression, probabilities)*, AI Fundamentals, Visual Computing, Functional Programming *(Haskell, λ-calculus)*, Databases *(SQL)*, Designing Interactive Systems, Discrete Mathematics for Computation *(calculus)*, Analytical Mathematics for Applications, Principles of Programming *(C and Java projects)*.

Publications

- Jaamour A, et al. (2023) A divide and conquer approach to maximise deep learning mammography classification accuracies. PLOS ONE 18(5): e0280841. https://doi.org/10.1371/journal.pone.0280841

Projects & Research

- Jaamour, A. (2020), Breast Cancer Detection in Mammograms using Deep Learning Techniques. *(Master's Thesis)*
- Jaamour, A. (2019), Content-Based Video Retrieval for Pattern Matching Videos. *(Bachelor's Thesis)*

See full list of projects on *www.adam.jaamour.com* and on *github.com/Adamouization*.

Technical Skills

- **Main programming languages:** Python, Java, SQL and web-based languages (TypeScript, JavaScript, HTML, CSS).
- **Python Machine Learning:** Scikit-Learn, Pandas, LightGBM, XGBoost, NumPy, Matplotlib, Plotly, Keras/Tensorflow, PyTorch, Seaborn and Dara.
- **Experience with frameworks:** Python-based (OpenCV, NLTK, Django, Flask) and web-based (Next.JS, TailwindCSS, Boostrap, JQuery, Node.JS, Jekyll, Highcharts, D3.js).
- **Experience programming in:** SQL (PostgreSQL, Dremio), Bash, C, GodotScript, Haskell, MATLAB and Basic (AGKv2).
- **Tools used:** Jetbrains IDEs (PyCharm, Webstorm, IntelliJ), Code editors (JupyterLab, Visual Studio, Cursor, Vim), Big Data (AWS S3, Dremio), Git clients (GitHub, BitBucket), Travis CI, Vercel, Heroku and LaTeX.

General Skills

- **Software engineering skills:** Object-Oriented Programming, git version controlling, testing suite coverage, CI/CD pipelines, agile development, code documentation, data structures & algorithms, wireframe prototyping and UML design.
- **Team management skills:** Agile SCRUM and Kanban methodologies; Inspire Team Leader Program training.
- **Professional skills:** strong analytical, problem-solving, communication and team working skills.
- **Operating systems:** Linux (Fedora, Ubuntu and Debian), macOS and Windows.

Teaching

- Section Leader - Stanford Code in Place (2021 & 2023) Teaching the online "*CS106A: Programming Methodologies*" course in Python to a section of 15 students over 6 weeks.

Languages

- **English:** Native
- **French:** Native
- **Spanish:** Limited working proficiency

Extracurricular Activities

- **Sports:** Triathlon, tennis, squash, padel and football.
- **Hobbies:** Karting, retro gaming, mountain hiking, philately, scuba-diving, filmmaking, kendama and piano.

References Available on Request