

Adam Jaamour

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Data Scientist | Machine Learning

WORK EXPERIENCE

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

- 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.
- Assessing the performance gains of new data sources in experimental builds, allowing us to improve the performance of existing models.
- Redefining the team's coding standards through the implementation of good software engineering and data science practices while revamping team knowledge retention practices.

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.
- Improved robustness by building an extensive test coverage suite of unit tests, integration tests and acceptance tests and by documenting the code in a wiki for team knowledge retention.
- Enhanced performance by identifying slow SQL queries and optimising related Django ORM code.
- Liaised with domain experts in the UK and Italy to translate user requirements and business cases into code changes.

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 (JavaScript ES6, HTML, CSS).
- **Python Machine Learning:** Scikit-Learn, Pandas, LightGBM, XGBoost, NumPy, Matplotlib, Keras/Tensorflow, PyTorch and Seaborn.
- **Experience with frameworks:** Python-based (OpenCV, NLTK, Django, Flask) and web-based (Bootstrap, 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 Code, Vim), Big Data (AWS S3, Dremio), Git clients (GitHub, BitBucket), Travis CI, 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:** Tennis, squash, padel, football and running.
- **Hobbies:** Karting, scuba-diving, mountain hiking, filmmaking, philately, kendama and piano.
- **Hackathons:** Competed at Bathack 2015 and LaunchPad 2017 (finalist).

References Available on Request