

## WORK EXPERIENCE

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### NewDay

Data Scientist

London, UK

2021–Present

- Successfully developing machine learning models applied in credit risk, fraud detection and collections, while maximising performance gains and favouring explainability and stability.
- Assessing the performance gains of new data sources to improve existing models via experimental builds.
- Ensure the robustness and relevance of live models with monthly monitoring performance and stability.
- Redefining the team's coding standards through the implementation of good software engineering and data science practices while revamping team knowledge retention practices.
- Leading the development of the team's shared codebase for accelerated and mainstream model development.

### Scuderia Toro Rosso Formula 1 Team

Software Engineer Placement

Bicester, UK

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

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### University of St Andrews

MSc in Artificial Intelligence

St Andrews, UK

2019–2020

- Achievement: All-time top grade of Machine Learning module since its inception, with a 99.0% average.
- Grade: 88.99% (*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

BSc Computer Science

Bath, UK

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,  $\lambda$ -calculus*), Databases (*SQL*), Designing Interactive Systems, Discrete Mathematics for Computation (*calculus*), Analytical Mathematics for Applications, Principles of Programming (*C and Java projects*).

### Lycée Albert 1er

French Baccalaureate, Scientific Stream specialised in Physics with "Option Internationale".

Monaco

2012–2015

## RESEARCH

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- 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)*

## PROJECTS

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See full list of projects on [www.adam.jaamour.com](http://www.adam.jaamour.com) and [github.com/Adamouization](https://github.com/Adamouization).

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|---|---|
| Seal Pup Aerial Imagery Classifier  | Superconductors' Critical Temperatures Prediction   |
| • Top of the class classification results of seal pups from aerial imagery using neural networks. | • Beating published paper's results using linear regression with regularisation techniques. |

## TECHNICAL SKILLS

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- **Main programming languages:** Python, Java 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), C, Bash, Haskell, MATLAB, Swift and Basic (AGKv2).
- **Tools used:** JetBrains IDEs (PyCharm, Webstorm, IntelliJ), Code editors (Jupyter, Atom, Sublime Text, Vim), Big Data (AWS S3, Dremio), Git clients (GitHub, BitBucket), Travis CI, Heroku and  $\text{\LaTeX}$ .

## GENERAL SKILLS

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- **Software engineering skills:** git version controlling, testing suite coverage, CI/CD, agile development, 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.

## AWARDS & CERTIFICATIONS

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- Dean's List Award - University of St Andrews (2020)
- RITTech Professional Registration (Specialist Area of Software Development) - BCS (2019)

## LANGUAGES

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

## EXTRACURRICULAR ACTIVITIES

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- **Sports:** Tennis, squash, football, padel and golf.
- **Hobbies:** Karting, scuba-diving, free-diving, mountain hiking, filmmaking, philately, kendama and piano.
- **Hackathons:** Competed at Bathack 2015 and LaunchPad 2017 (finalist).

## REFERENCES

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Marco Milano  
Data Science Senior Manager  
NewDay  
Email: *available on-demand*

Dr David Harris-Birtill  
Lecturer & Master's Thesis Supervisor  
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