Adam Jaamour

Website: www.adam.jaamour.com
Email: adam@jaamour.com
LinkedIn: adamjaamour
GitHub: github.com/Adamouization

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 99.0% average.
- Grade: 88.99% *(Distinction)*
- Modules: AI Principles *(probability/statistics, neural networks, search algorithms)*, AI Practice *(Python/Java projects)*, Machine Learning, Language and Computation *(NLP)*, Object-Oriented Modelling/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)*.

Lycée Albert 1er — Monaco
French Baccalaureate, Scientific Stream with "Option Internationale". — 2012–2015

Work Experience

Scuderia Toro Rosso Formula 1 Team — Bicester, UK
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 Framework, 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 (Python unitest and Selenium) and by documenting the code in a wiki to retain team knowledge.
- 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.
- Set up direct contact between Toro Rosso and the University of Bath for the recruitment of future interns and interviewed potential candidates.

Monte-Carlo Multimedia — Monaco
Android Application Developer Intern — Summer 2016

- Designed and implemented a scalable template-like Android application for a real-estate agency from scratch by fetching data from a single XML feed, which involved writing the server-side logic in Java and the UI in XML.
- Using my template, a second application was created on my final work day and published on the Google Play Store in under 3 hours (https://bit.ly/2qqexsH).

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)*

Projects

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

Seal Pup Aerial Imagery Classifier
- Top of the class classification results of seal pups from aerial imagery using neural networks.

Superconductors' Critical Temperatures Prediction
- Beating published paper's results using linear regression with regularisation techniques.

Technical Skills

- **Main programming languages:** Python, Java and web-based languages (JavaScript ES6, HTML, CSS).
- **Python Machine Learning:** Keras/Tensorflow, PyTorch, Scikit-Learn, NumPy, Pandas, Matplotlib and Seaborn.
- **Experience with frameworks:** Python (OpenCV, NLTK, Django, Flask) and web-based (Boostrap, JQuery, Node.JS, Jekyll, Highcharts, D3.js).
- **Experience programming in:** C, SQL (PostgreSQL), Bash, Haskell, MATLAB, Swift and Basic (AGKv2).
- **Tools used:** Jetbrains IDEs (PyCharm, Webstorm, IntelliJ), Jupyter, Vim, GitHub, Travis CI, Heroku and LaTeX.

General Skills

- **Software engineering skills:** git version controlling, testing suite coverage, CI/CD, agile development, wireframe prototyping ands UML design.
- **Professional skills:** strong analytical, problem-solving, communication and team working skills.
- **Operating systems:** Linux (Fedora, Ubuntu and Debian), macOS and Windows.

Awards & Certifications

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

Languages

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

Extracurricular Activities

- **Sports:** Tennis, football, padel and golf.
- **Hobbies:** Karting, scuba-diving, free-diving, mountain hiking, filmmaking, philately and kendama.
- **Hackathons:** Competed at Bathack 2015 and LaunchPad 2017, in which we reached the finals.
- **Debating:** Member of the Science Debate Club, which our team won in 2014, and participation in the Model United Nations four times.

References

Dr David Harris-Birtill
Lecturer & Thesis Supervisor
University of St Andrews, School of Comp. Science
dcchb@st-andrews.ac.uk

Jason Mowbray
Aerodynamic Systems Group Team Leader
Scuderia Toro Rosso F1 Team
jason.mowbray@tororosso.com