

Joshua Fenech

MACHINE LEARNER

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Masters Machine Learning & Data-mining student, Physics Graduate 2:1. Offering well-developed technical, programming and interpersonal skills and experience of supervised machine learning implementation. I have been implementing Convolutional Neural Networks in order to create a subtitle synchronisation app to increase access to cinema for the hard of hearing.

Education

University of Jean Monnet

Saint-Étienne, France

MACHINE LEARNING AND DATA MINING MASTER'S DEGREE

Sep. 2017 - Sep. 2019

- Key modules include:
- Optimisation & Operational Research
- Introduction to Machine Learning
- Algorithms
- Complexity
- Data Analysis
- Data Mining

University of Sussex

Brighton, UK

BSc HONS 2:1 PHYSICS WITH FOUNDATION YEAR

Sept 2013 - Jun 2017

- Received Eliahou Dangloor Scholarship for academic excellence.
- Key modules include:
- Final Year ML project - 66%
- Skills in Physics - 72%
- Extragalactic Astronomy - 78%
- Scientific Computing - 69%
- Electrodynamics - 70%
- Physics Laboratory - 72%

Hong Kong University of Science & Technology

Hong Kong

INTERNATIONAL SUMMER SCHOOL

Summer 2015

- Studied Electro-robot Design, learning to design and build a robot from elementary components that could sense and navigate itself around a course. Our team won the award for best robot.
- Studied Business Statistics, improving my ability to handle statistics in real-world applications.
- Worked with students from around the world and lived and studied in a very different culture.

Esher College

Esher, UK

A/AS LEVELS

2006 - 2009

- Physics - A
- Chemistry - A
- Biology - A
- English Lit. - A
- Maths As Level - A
- Classic Civ. As Level - C

Tiffin Grammar School

Kingston, UK

GCSE's

2001 - 2006

- 9 A - C's including Maths, English and Triple Science

Relevant Skills

IT / SOFTWARE, Well-developed Latex, Python, Linux, Git and R skills. At ease with Scikit-Learn, TensorFlow, data scraping, visualisation, preparation, model selection, training and evaluation.

MATHEMATICS, I have enjoyed developing my mathematical skills in challenging modules such as Quantum Mechanics. I have extensive experience handling and extracting insights from data.

COMMUNICATIONS, With a proven record in a sales environment and Society management, I am able to communicate effectively and concisely.

LANGUAGES, Intermediate French, basic BSL and elementary Mandarin via evening language courses and travel. I shall be receiving my Maltese passport shortly and will be unaffected by any possible Brexit consequences.

INDEPENDENCE & DETERMINATION, Having cycled and walked across Cambodia, England and France, I thrive in physically and mentally challenging environments. I have studied in England, Hong Kong, France and currently on Erasmus at University of Torino, Italy: I am at ease in new surroundings and thrive when meeting new people from around the world.

Relevant Experience

Project to Detect Subtitles from Audioto Synchronise Subtitle Track in Real Time

Saint-Étienne, France

UNIVERSITY OF JEAN MONNET

May 2018 - Jul. 2018

- Extracted MFCC's to use as predictive feature.
- Implemented CNN's, tuned with hyperopt and improved architecture to obtain 93% accuracy.
- Implemented an informed search method to locate position in track based on audio features.

Final Year Project in Identifying Fast and Slow Rotating Galaxies Using Machine-Learning Algorithms

Brighton, UK

UNIVERSITY OF SUSSEX

2016 - 2017

- Located, downloaded and processed astronomical data using get scripts and FITS files within Python and Linux.
- Implemented Decision Trees and Random Forests modules from the Scikit-Learn package within Python.
- Achieved grade of 80% when presenting preliminary results.

UKSEDS (Students for the Exploration & Development of Space) Branch Founder and President

Brighton, UK

UNIVERSITY OF SUSSEX

2014 - 2017

- Founded the first branch at Sussex University, increasing membership to 20 members after achieving £400 request.
- Won the Thales Arduino challenge within the university using programming and electrical skills.
- Organised visits to National Student Space conference, Graduate Space Fairs, the Cosmonaut Exhibition and rocket building events.

Additional Experience

Domestic & General

Brighton, UK

SALES ADVISOR

Dec. 2012 - Dec. 2013

- Worked in target-based sales telesales selling insurance products.
- Further developed my communication and compromising skills, building rapport with customers to reassure their concerns.
- Worked under pressure to fulfil targets by deadlines whilst remaining calm to be regularly amongst the top-performers.

Pell & Bales

Brighton, UK

SALES ADVISOR

Dec. 2011 - Jun. 2012

- Worked in target-based telefundraising, raising donations for range of charities.
- Worked to communicate the aims of the charities and build rapport with donors.
- Under flexitime arrangement was responsible for managing my own time.

Interests & Achievements

SPORTS

2017- **Saint-Étienne**, Member of Local Climbing club

2014-2017 **University of Sussex**, Member of University Climbing Team

2001-2006 **Tiffin School**, Captain of School Rugby First team, Rowing and Cross-Country First Team Member

TRAVEL

2016 **Walked and camped along the South Downs Way,**

England

2015 **Walked and camped across France & Spain,**

Europe

2014 **Cycled and camped along south coast of England,**

England

2010 **Hitchhiked across China,**

China

2009 **Cycled and camped across Cambodia,**

South-east Asia

Referees

Dr. Rémi Emonet

ASSOCIATE PROFESSOR OF COMPUTER SCIENCE, UJM

- 10 Rue Tréfilerie, 42100 Saint-Étienne, FRANCE
- Email: remi.emonet@univ-st-etienne.fr

Dr. Jon Loveday

READER IN ASTRONOMY

- University of Sussex, Falmer, Brighton, ENGLAND BN1 9RH
- Email: j.loveday@sussex.ac.uk