Daniel Suarez-Mash

Senior Data Scientist at UK Home Office

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SKILLS

Python   SQL

Jupyter   PyCharm

Git

Command Line Interface

AWS

LANGUAGES

Spanish
Native or Bilingual Proficiency

German
Elementary Proficiency

INTERESTS

Artificial Intelligence

Cars   Squash

Tennis   Football

Piano

WORK EXPERIENCE

Senior Data Scientist
UK Home Office

12/2021 - Present

Achievements/Tasks

- Developed a core data science skillset through completing the ONS Data Science Graduate Programme from 2021-2023.
- Led 6 month development of a reproducible analytical pipeline which retrieves and engineers features on immigration data. I earned Home Office's Performance Excellence Award for this work.
- Promoted to a senior position after 12 months and given full responsibility over development, testing and performance of supervised machine learning product.
- Re-trained a supervised machine learning model which triages marriage applications. There was a maximum quantity of applications which the model could class as positive and therefore, using recall at K as the performance metric, I developed an innovative visual approach to selecting the optimum threshold for model performance whilst remaining within stakeholder guidelines.
- Delivered a 3 hour workshop to my team of 30 to encourage learning and development activities. Using case studies and interactive activities, the workshop was a great success in generating new and interesting project ideas which involved varied data science techniques but also generated a positive impact to the Home Office. I earned Home Office's Performance Excellence Award for this workshop.
- Developed a brand new customer-facing PowerBI dashboard to monitor all aspects of the immigration ML model. After collecting feedback from customers, I created charts which they could understand and use. I used an innovative bookmark-button technique to have multiple charts accessible on one report tab - this helped keep the dashboard simple and user-friendly.
- I led my team in applying time-series techniques to immigration data to help customers forecast applicant volumes over the next 12 months. By setting clear goals and managing tasks using an Agile approach, the team was able to collaborate effectively. We presented our work back at the workshop mentioned above and implemented it within the business to help customers plan staffing levels.
- As a mentor, I helped implement data science techniques for an analysis into police workforce data using R to answer questions about progression and recruitment rates for BAME officers. This involved overcoming data limitations through data matching techniques (exact matching) and applying time-series forecasting methods to visualise data 6-12 months ahead.
- Fully responsible for delivering quarterly performance reviews to customers on the immigration ML model. This involved discussing technical concepts such as recall/precision to non-technical audiences.
- Regular BAU tasks to maintain SML model (bug fixing, feature development, PowerBI dashboards etc).

Private Mathematics Tutoring
Self-employed

08/2017 - Present

Achievements/Tasks

- Over 2000 hours of tuition to levels ranging from primary school to university.
- Learned to adapt teaching style to different learning styles and especially with students with learning disabilities such as dyslexia or dyscalculia.
- Managed expectations with students and parents through regular feedback and assessment.
- Over 30 reviews with 5 stars on tutoring profile.

EDUCATION

MSc Electrical Automotive Engineering - Distinction & Best Student
Coventry University

09/2019 - 08/2020

Courses
- Thesis - Classifying Symbolic Road Markings using deep Convolutional Neural Networks (77/100), published in the European Union Digital Library.
- Power Semiconductor Devices and Converters (97/100) - highest out of cohort.

BSc Mathematics with Finance and Economics - 1st Class
City, University of London

09/2016 - 07/2019

Courses
- Vector Calculus (100/100)
- Groups and Symmetry (90.6/100)

EXTRA-CURRICULAR

Committee member - West Warwickshire Sports Club (03/2022 - Present)
Ensuring that decision making at the club is in the best interest of members. I also run the squash leagues at the club.

Student Union, Coventry University (09/2019 - 08/2020)
Senior Course Representative for PG Electronics, IT and Computing Forum.

Friends of Bolivia (06/2015 - Present)
Member of the charity. Regularly help out in the running of fundraising and other charity events.

Solihull Round Table (09/2020 - Present)
Member of the charity helping out with fundraising events.

CERTIFICATES AND SCHOLARSHIPS

Faculty award for Best Student in MSc Electrical Automotive Engineering

PostGraduate Taught Academic Excellence Scholarship from Coventry University, 2020

City, University of London Scholarship Programme, 2016-2019

Professional Consulting (Level 7 award) - Chartered Management Institute (CMI)

Strategic Management and Leadership (Level 7 Certificate) - CMI