Amir Mohammadikarbalaei

Data Scientist

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PERSONAL STATEMENT

Detail-oriented Mechanical Engineering graduate with a proven track record of achieving results. Through participation in Kaggle competitions and personal projects, I have developed a profound appreciation for the transformative power of data in any business. The dynamic and intricate field of data science, demanding adept problem-solving and creative thinking, resonates deeply with me. I am sincerely passionate about using AI and machine learning to address real-world problems, aiming to make a positive impact on humanity by harnessing the power of cutting-edge technology. Eager to contribute my skills and knowledge to a forward-thinking organization that values innovation and offers opportunities for continuous learning and personal growth.

KEY SKILLS

- **Problem-Solving skills:** Adept at identifying, analysing, and evaluating critical information to craft effective solutions for real-world challenges.
- **Teamwork:** Demonstrated a track record of successful teamwork, consistently delivering results on diverse academic projects.
- **Leadership:** Led teams through projects, fostering collaboration, ensuring understanding, providing support, and achieving exceptional results.

- **Python:** Over 2 years of hands-on experience with Python, confidently navigating the entire ML Python stack, including NumPy, Pandas, Scikit-learn, and deep learning frameworks like TensorFlow.
- **Machine learning:** Proficient in various machine learning techniques, encompassing Supervised, Semi-supervised, and Unsupervised learning.
- **Data Cleaning:** Expert in Extracting, Transforming, and Loading data from diverse sources, both online and local. Proficient in data refinement techniques, including effective data filtering, de-duplication, and the application of relevant functions in both Python and Microsoft Excel.

EXPERIENCE

Data Analytics Bootcamp, Generation UK and Ireland, Leeds   **Oct 2023 – Jan 2024**

- Conducted a comprehensive analysis of Olist dataset, a Brazilian e-commerce platform, utilizing Power BI and SQL. Investigated key business aspects affecting customer satisfaction and generated detailed reports and dashboards. Crafted and delivered a presentation, providing key insights and improvement recommendations.
- Guided two teams in completing interim and final projects, fostering a comprehensive understanding among team members, and offering support. Attained a score of 100% on both projects through effective leadership and collaborative efforts.
- Collaborated with the instructor to deliver lessons and guide less experienced learners in acquiring skills for a data analytics role. Provided mentorship by offering explanations and guidance on key concepts.

- Demonstrated expertise in data exploration and manipulation through Excel and SQL, involving extraction and cleansing of data from diverse sources such as databases, lists, and websites.
- Employed Python and related libraries, such as NumPy, Pandas, and Matplotlib for systematic data exploration and manipulation.

Independent Data Scientist, [Portfolio](#)   **Sep 2020-Oct 2023**

Following university graduation, encountered a temporary employment restriction due to immigration challenges. During this period, took a proactive approach by investing time in advancing skills in Python and SQL and engaging in Kaggle competitions.

- Utilised time series forecasting and classification techniques to detect and analyse EEG biopotential signals. Achieved accuracy 2.5X of random guessing.
- Applied unsupervised learning to cluster retail shop customers based on purchasing behaviour and preferences, enabling targeted marketing strategies and improved customer experiences.
- Implemented Q-learning to train an autonomous agent for gameplay in Gym environment games.
- Competed in the Kaggle competition hosted by the Child Mind Institute, focused on "Detecting Sleep State." Engaged in thorough exploratory data analysis (EDA) and comprehensive feature engineering to develop and train classification models.

Student Mechanical Engineer, AVID Technology Limited, **Cramlington**   **Jul 2019 – Sep 2019**

- Led the ThermoFluid group in incorporating software solutions to increase efficiency.
- Conducted a software review of OpenModelica and Xcos Scilab, two powerful tools for modelling and simulating dynamic systems.
- Enhanced product longevity by flagging a significant manufacturing concern regarding the surface finish of the impeller.
- Gained valuable experience in project and product life cycle management.

EDUCATION

Newcastle University - BEng (Hons) Mechanical Engineering - First Class   **2017-2020**

- Went through advanced levels of Statistics and Mathematics, acquiring a strong foundation in quantitative analysis.
- Collaborated seamlessly within diverse, multidisciplinary teams during the MATE ROV Competition, resulting in the attainment of critical project milestones. This effort culminated in a historic achievement, marking the first-ever qualification of a team from Newcastle University for this esteemed international competition.

Bellerbys College Brighton Engineering Foundation year   **2016-2017**
Maths, Physics – Achieved 73% Overall

INTERESTS

I'm dedicated to a range of interests, with a focus on maintaining a healthy lifestyle through regular exercise, participation in Kaggle competitions to expand my problem-solving abilities and knowledge, and a passion for 3D design and printing that hones my attention to detail, precision, and technical proficiency.