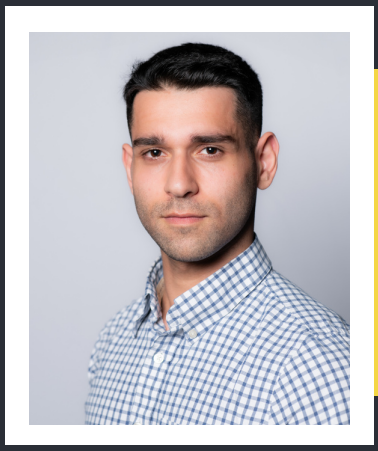

AMIR MOHAMMADIK

07429244084

a.mohammadikarbalaei@gmail.com

GitHub

LindeIn

Leeds

PROFILE

Mechanical Engineering graduate with a strong focus on results and attention to detail. Enthusiastic about ML and AI techniques, with demonstrated aptitude through personal projects and academic studies. Seeking a challenging role in an innovative organization that values ongoing learning and growth.

EDUCATION

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

Engineering Foundation year
Bellerbys College Brighton 2016-2017

SKILLS

- Python (Numpy, Pandas, Scikit-Learn,TensorFlow)
- SQL
- Tableau
- ML & AI – including Reinforcement learning
- NLP- (nltk, sentiment analysis)
- Computer Vision - Object detection
- GitHub
- Docker
- Excel

EXPERIENCE

Student Mechanical Engineer, AVID Technology Limited

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.
- Gained valuable experience in project and product life cycle management.

TECHNICAL EXPERIENCES

News aggregation web extension

- Employing semi-supervised learning techniques to annotate scraped articles retrieved from news websites, which have been stored in a PostgreSQL database and cleaned using NLTK, for further analysis.
- Employing LLM embeddings and cosine similarity metrics to evaluate the likeness of articles.
- Developing a dynamic recommendation model for personalized article suggestions that evolves with user interactions.

Mate ROV Competition:

- Participated in a prestigious international competition focused on designing a marine rover.
- Collaborated as a key member of a sub-group within my university's competing team to successfully design and manufacture two crucial mechanisms of the rover.
- Effectively communicated and collaborated with diverse multidisciplinary sub-teams, achieving project milestones and becoming the first group from Newcastle University to qualify for the competition.

PERSONAL PROJECTS

- Utilised time series forecasting and classification techniques to detect and analyse EEG biopotential signals.
- Implemented object detection algorithms on a custom dataset.
- Applied unsupervised learning for customer clustering on a retail shop customers dataset,
- Implemented Q-learning to train an agent for autonomous gameplay in Gym environment games.
- Currently participating in the Kaggle competition hosted by the Child Mind Institute, focused on "Detecting Sleep State." My contributions involve in-depth exploratory data analysis (EDA) and comprehensive feature engineering to develop and train a classification model.