AMIR MOHAMMADIK

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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.Following my graduation, I encountered employment restrictions, which have now been successfully resolved.

EDUCATION

BEng (Hons) Mechanical Engineering
Newcastle University 2017-2020

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
- Matlab / Simulink
- GitHub
- Ansys
- Embedded C

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.
- Conducted an in-depth evaluation of centrifugal pumps engineered by AVID, whereby a significant manufacturing concern pertaining to impeller surface finish was identified.
- Enhanced longevity of the pumps through proactive resolution of the matter.
- Gained valuable experience in project and product life cycle management.

TECHNICAL EXPERIENCES

News aggregation web extension

- Leveraging semi-supervised learning to label scraped articles from news websites.
- Employing LLM embeddings and cosine similarity scores to assess article similarity. This, combined with weighted article labels, serves as a suggestion mechanism for users
- Developing an Active Learning Suggestion Model that initially recommends articles based on user preferences. The model learns from customer behaviour, including article engagement duration and click through rate, to enhance the scoring system and optimise future recommendations.

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: the Gripper and release mechanism.
- 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.