AMIRPARSA ROUHI

Graduate Data Scientist | AI Engineer | Data Engineer

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SUMMARY

Graduate AI & Data Science Engineer with a Distinction-level MSc and practical experience developing end-to-end machine learning systems across computer vision, NLP, and reinforcement learning. Skilled in applying deep learning and LLMs for real-world impact, including GPT-based educational tools, SLAM-based navigation systems, and medical image analysis. Adept with Python, C++, TensorFlow, and Django, with a strong academic foundation and a proven ability to collaborate effectively in agile, cross-functional teams.

SKILLS

- Python (Pytorch, Tensorflow, Keras, Pandas, Matplotlib, Numpy, Django)
- C++, Javascript
- Database
- Data Visualisation
- Statistical Analysis
- Big Data Management

WORK EXPERIENCE

Computer Vision Laboratory Assistant

BNUT 2021 - 2022

- Designed and embedded novel C++ SLAM modules tested on **simulated fleets of 50+ vehicles**, enhancing path-tracking accuracy by **15%** in autonomous vehicle simulators.
- Developed object detection and instance segmentation pipelines using Mask R-CNN in Python, achieving **92% detection precision** on a 20k-image test set and reducing false positives by **30%**.
- Worked in cross-functional Agile sprints (team of 6) to integrate perception and localization stacks, accelerating development cycles by **25%**.

Generative AI Developer (Volunteer)

RADSAM 2024 - 2025

- Fine-tuned a GPT based model using Python and OpenAI APIs, reducing model inference latency by **40ms** and increasing usability in pilot tests involving **200+ international students**.
- Built a Django RESTful backend API to deploy the model across web/mobile apps, supporting **100+** daily interactions and achieving **85%+ user satisfaction** in initial feedback surveys.
- Collaborated within a 3-person dev team, using Agile methods to integrate generative AI features into existing student-support platforms, improving response generation **speed by 50%**.

EDUCATION

MSc in Data Science and Artificial Intelligence with Distinction

Bournemouth University, England 2024 – 2025

Dissertation: AI-Driven Chest X-Ray Analysis: Automated Report Generation with Large Language Models

BSc in Computer Engineering

Babol Noshirvani University of Technology 2018 – 2023

Dissertation: Breast Cancer Detection Using Deep Learning Algorithms

PUBLICATION

Investigation of RNN and CNN models in self-driving cars and inefficiency in some special condition and presentation of alternative model

Vahid Esfandiari, **Amirparsa Rouhi**, Fatemeh Parsakordasiabi, 12th international conference on innovation and research in engineering science (ICIRES 2022), Georgia

SUBMITTED MANUSCRIPT

Hybrid Deep Learning Leveraging EfficientNetB0 for Enhanced Multi-Class Brain Tumour Classification from MRI

Amirparsa Rouhi, Fatemeh Parsakordasiabi, Timothy Albiges, Zoheir Sabeur, Manuscript submitted for publication, Journal of Imaging, MDPI

CERTIFICATION

- **IBM Data Engineering Professional Certificate**
  Certification course by IBM, offered through Coursera, 2025
- **Advanced Deep Learning**
  Certification course by IEEE, 2021
- **Introduction to Data Science**
  Certification by IEEE, 2020

STRENGTH

- Analytical (Successfully analysed large datasets at Bournemouth University)
- Problem-solver (Tackled data discrepancies at RADSAM, ensuring data accuracy and integrity)
- Collaborative (Worked seamlessly with team members to implement data solutions at BNUT)
- Presentation (Done multiple times at Bournemouth University)