LIDA SHAHMIRI

✉ **Mail**| ⬡ **GitHub**| ⅏ **Scholar**| 🗂 **Portfolio**| 📞 **+44 7448488982**

Professional Summary

I am a Doctoral researcher in computer science, specialised in statistical modelling, with expertise in analysing large datasets using Python and ML to draw inferences. My specific interest is in developing scalable ML pipelines and promoting interdisciplinary research that combines AI theory and practice with domain expertise. I have worked with interdisciplinary teams and have strong communication skills, having delivered numerous research and outreach talks to diverse audiences.

Skills

- **Programming:** Advanced (6+ yrs): Python (Pandas, NumPy, SciPy, Scikit-Learn, TensorFlow, Keras)
  Intermediate (3+ yrs): SQL, C#
  Basic (1+ yr): Java, HTML/CSS/JS
- **Statistics & ML:** Statistical Tests, Regression, Classification, Clustering, Causal Learning, Model Evaluation, Explainable AI, Continual Learning, Deep Learning,
- **Visualisation & Tools:** Tableau, Matplotlib, Seaborn, Streamlit, GitHub, GitHub Actions, Docker, LATEX, APIs
- **Cloud Platforms:** AWS (S3, EC2, RDS, SageMaker, Lambda), Azure (AI-900)
- **Soft Skills**: Analytical Thinking, Problem-Solving, Team Collaboration, Adaptability & Quick Learning

Education

PhD in Computer Science| Open University | UK   **Feb 2021- Sep 2025**
- Design a robust framework for the classification of medicinal plants in the natural environment.
- Introduced two dataset partitioning methods for CNNs and reduced misclassifications by 70%
- Introduced a quantitative analysis of the LIME technique for model validation

MSc in Computer Science | Islamic Azad University | Iran   **Feb 2013- Sep 2015**
BSc in Computer Science |Payam Noor | Iran   **Feb 2007- Jan 2011**

Experience

Research Assistant and AI Researcher| The Open University**|** UK   **Apr 2024- Jul 2025**
- Developed Zooniverse butterfly wing pattern recognition for citizen science.
- Applied image processing techniques like U-Net segmentation to improve landmark visibility and reduce background noise.
- *C*onducted research on butterfly wing pattern recognition
- Supported the successful acquisition of a research grant at The Open University

Researcher & Developer|Pooya Samaneh Diva |Iran   **Feb 2018- Jan 2020**
- Supervised the development of novel software products for the Hospital Information System (HIS), in accordance with health specifications and security of information.
- Reviewed experimental results and user feedback to establish system functionalities and streamline patient management workflows.

Personal Projects

Enhancing Targeting Accuracy Using ML- 🔗 View blog post | View code on GitHub | App
Python | Flask | Scikit-learn | Random Forest | Docker | GitHub Actions | Heroku
- Developed a predictive web application to estimate customer sign-up likelihood for a retailer's delivery service.
- Pre-processed data by handling missing values, removing outliers, applying feature selection (RFE), and encoding categorical variables with OneHotEncoding.
- Evaluated multiple models, including Logistic Regression, KNN, Decision Tree, and Random Forest, using cross-validation; selected Random Forest for its robustness and superior performance.
- Built a clean Flask-based UI with visual feature importance explanations to improve transparency.
- Containerised the application with Docker and deployed it via GitHub Actions CI/CD pipeline to Heroku's container stack.

Creating An Image Search Engine Using DL - 🔗 View blog post | View code on GitHub | App
Python | Flask | TensorFlow | Keras | VGG16 | Cosine Similarity | KNN | Docker | Railway
- Developed a deep learning–based image search engine that retrieves visually similar products by comparing image embeddings.
- Extracted deep visual features using a pre-trained VGG16 model with Global Average Pooling for compact and efficient representation.
- Implemented Cosine Similarity and K-Nearest Neighbours (KNN) to identify and rank the most visually similar items.
- Built a Flask web interface enabling users to browse product images and instantly view visually similar matches.
- Containerised and deployed the application using Docker on Railway for scalable, production-ready cloud performance.

Professional Highlights

- Won grant funding in a collaborative research project: Butterfly Wing Diversification & Evolution with Citizen Science, The Open University, Research assistant / Co-Applicant **2025**
- Published three first-author and one co-author peer-reviewed articles **2019- 2025**
- Summer digital workshop AI Lead, Fresh Youth, Milton Keynes, UK **2025**
- Presented talks at conferences: C&C, poster competition (UK), IAU (Iran), IPAS (Italy) **2021- 2025**
- Bachelor's and PhD scholarship **2007, 2021**
- Organising workshops and seminars and giving lectures at two universities in Iran **2015- 2018**
- Master's degree, Graduated with Distinction **2015**