

Ali

Arslan

+ Personal Information

- 👤 25th march 2000
- 🇵🇰 Pakistani
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- 🌐 <https://www.linkedin.com/in/ali-arslan-79652318b/>
- 🌐 <https://www.aliarslan.info/>
- 📄 Full working rights in Australia under 476 visa

+ Work Experience

📅 06/2022 – PRESENT 📍 MIAMI (REMOTE), USA

Senior Machine Learning Engineer Healthbird

- Developed a recommender system for the insurance platform, focusing on the health insurance sector in the United States.
- Collaborated with license agent specialists to generate synthetic data for the recommender system.
- Utilized personal user profiles and variables such as Maximum Out of Pocket, Medicine, clinical charges, and specialized doctor charges to drive decision-making.
- Incorporated continuous live data from the website to continuously improve the recommender system over time.
- Took on the responsibility of deployment, monitoring, and development of the application, while effectively communicating and integrating with other engineering teams.

📅 07/2021 – 09/2022 📍 NORFOLK, VA (USA), USA

Machine Learning Engineer (Remote) Netarus LLC

As the lead Machine Learning Engineer at Netarus LLC, my primary responsibilities revolved around enhancing the company's backend operations. My key focus areas included developing top-tier Object Detection systems and refining Optical Character Recognition algorithms.

During my tenure, I was able to drive significant enhancements including:

- Achieving a 99% accuracy rate for Machine Learning algorithms, thereby improving overall performance.
- Boosting system efficiency by reducing backend latency.

+ Work Experience

📅 09/2020 – PRESENT 📍 ISLAMABAD, PAKISTAN

Machine Learning Engineer (Freelance) Fiverr

https://www.fiverr.com/john_alia

As a proficient Machine Learning Expert, my expertise encompasses the realm of Computer Vision, Data Science, and Image Processing. I am committed to providing solutions that drive automation, efficiency, and innovation in businesses.

Here are some of the key areas where I can provide value:

- Designing and developing custom algorithms tailored to your business needs, contributing to automation and enhanced efficiency.
- From concept to completion, I can build a robust backend architecture specifically for Machine Learning products within your organization, thereby ensuring optimal performance and scalability.
- Enhancing existing Machine Learning pipelines within your organization by implementing improvements, thus maximizing efficiency and output.

📅 06/2019 – 09/2020 📍 ISLAMABAD, PAKISTAN

Machine Learning Engineer (Intern) VC-Technologies

I worked on state-of-the-art algorithms in computer vision under the supervision of Dr Syed Saud Naqvi. The work was focused on early skin cancer detection through machine learning algorithms. ISIC 2019 dataset was used. The ensemble approach among the CNN performed best on the ISIC- 2019 Dataset

+ Projects

Container Detection and Recognition by Computer Vision

Netarus , LLC

<https://sitetrax.io/>

- Successfully served as a private contractor for a dynamic startup in Norfolk, USA, leveraging cutting-edge computer vision expertise to design and implement robust solutions for automating container search processes.
- Spearheaded the development of advanced computer vision solutions, demonstrating exceptional proficiency in conceptualizing,

+ Projects

prototyping, and deploying innovative algorithms and models.

- Utilized active problem-solving skills to tackle complex challenges and streamline container searching, resulting in enhanced efficiency and accuracy.
- Developed a localized infrastructure for load balancing to efficiently manage client-side requests for AI algorithm processing. Emphasizing a non-cloud-based approach, the system ensures all components are hosted locally for enhanced control and performance.

Hand-Pose Actuation using Computer Vision with 3D convolutional Neural Network

<https://github.com/ALI7861111/Hand-Pose-Estimation>

- Enhanced the work of Lihao Ge to optimize the accuracy-latency trade-off in hand-pose estimation using depth images
- Successfully benchmarked and validated the improved architecture
- Implemented a prediction model for hand-joints on the right side, while displaying the point cloud representation of depth images on the left side
- Utilized depth images from the NYU dataset and transformed them into volumetric data

Specialized OCR Development

<https://github.com/ALI7861111/OCR-with-seq2se2-models>

- Developed a custom OCR for reading specific fonts or orientations of characters, addressing the limitations of generalized OCR models on specific problems
- Optimized features including hyper-parameters, architectures, learning rates, number of convolution layers, number of nodes in linear layers, growth relationship in convolution layers, number of layers in memory units, hidden size in memory units, batch size, and optimizer to produce the best OCR model
- Implemented Seq2Seq models, a special class of Recurrent Neural Network architectures, for complex language problems such as machine translation, question answering, chatbot creation, and text summarization

+ Certificates

Advance Deep learning with keras

<https://shorturl.at/acjFX>

Natural Language Processing

<https://shorturl.at/mDH02>

+ Certificates

Sequences, Time series and Prediction

<https://shorturl.at/emsFU>

Python Programming

<https://shorturl.at/suxHN>

To see all projects, certifications visit LinkedIn, Github

+ Skills

AI / Algorithm Development

Machine Learning

Deep Learning

Image Processing / Computer Vision

Natural Language Processing

Supervised Learning, Unsupervised Learning, Feature Engineering

Data Analytics

LLM models

Programming

AWS Cloud Engineer

MLOps

Generative AI, Langchain, Lamini, Diffusion Models

Backend Development

Scalable Machine Learning Pipelines

+ Tools

Flask, Django, Jupyter Notebook

Tensorflow, Keras, Pytorch, Numpy

Python, C++, Java

Scikit-learn, Optuna

HTML, CSS

AWS , REST API, Web-Socket Application, SQL, PostgreSQL, NoSQL Database (MongoDB)

AWS lambda functions, AWS Code-pipelines.

CI/CD, Gitlab, Docker, online/ Incremental learning

Segmentation, Classification, Regression, Detection and Localization.

Ensemble Techniques, Transfer Learning

GAN's, Custom loss function

Lamini, Langchain , Cohere, Vector Databases

+ Education

My coursework, along with hands-on experience in projects like the aforementioned Hand Pose Actuation, solidified my expertise in machine learning techniques and their practical applications.

My educational journey has equipped me with a unique blend of mathematical acumen, programming proficiency, and research prowess, making me a valuable asset in the field of electrical computer engineering and machine learning.

+ Education

📅 09/2017 – 09/2021 📍 ISLAMABAD, PAKISTAN

Computer Engineering **COMSATS University, Islamabad**

Mathematical Proficiency:

My coursework encompassed advanced mathematical concepts, including probability theory, calculus, algebra, and differential equations. These subjects honed my mathematical abilities and fostered a high level of analytical skills, essential for problem-solving in engineering and computer science.

Programming Expertise:

A significant focus of my degree program revolved around programming languages. I attained proficiency in various software programming languages, including Python and C++, and delved into firmware microcontroller programming. This diverse skill set enables me to adapt to different programming paradigms and languages as required.

Research and Deep Learning:

The pinnacle of my academic journey was my final year project, "Hand Pose Actuation," where I applied cutting-edge deep learning techniques to develop innovative models. This project leveraged diverse filter utilization at each layer to enhance results. You can explore the code repository for this research project at: [GitHub Repository Link](#).

Specialization in Machine Learning:

Throughout my degree, I specialized in machine learning, delving deep into this transformative field.