**Niranjan Kumar Kishore Kumar**

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**SUMMARY**

Experienced healthcare professional with 2 years expertise in medical science and advanced analytics. Award-winning data scientist recognized for top performance at UC Berkeley AI Summit Generative AI Hackathon. Seeking a challenging role to apply skills in delivering impactful, data-driven solutions in a collaborative, innovative environment.

**EXPERIENCE**

**Machine Learning Intern** *May’24 – Aug’24*

*S&P Global New York City, USA*

* Conducted research on advanced time series models, including DLinear, NLinear, and TimeGPT, and compared them with traditional models like ARIMA and LSTM.
* Gathered and preprocessed high-quality data from both synthetic and real-world sources to ensure accurate and reliable analysis.
* Demonstrated that DLinear and NLinear models outperformed ARIMA and TimeGPT, with DLinear achieving 4x and 17x improvements on the Exchange Rate dataset and 3x and 5x improvements on Moody's Aaa dataset, respectively.
* Validated that DLinear and NLinear models significantly reduced computational power requirements compared to GPU-intensive models like LSTM..

**Biomedical Data Analyst** *Apr '22 — Dec '23*

*Billroth Hospitals Chennai, India*

* Implemented ETL processes to extract, transform, and load biomedical data from various sources, including medical imaging devices, laboratory equipment, and wearable devices.
* Analysed large-scale biomedical datasets using Python to extract actionable insights and improve workflows, leading to a 75% reduction in user-related incidents.
* Utilized data analytics and visualization tools like Excel, and Power BI to analyze biomedical data and extract actionable insights for improving standards of medical equipment, enhancing patient care, and addressing public health challenges.

**Medical Sales Executive** *Jun '21 — Jan '23*

*Medifocus India Pvt. Ltd.. Chennai, India*

* Led a rotational program to enhance healthcare access in rural areas, leveraging data analysis techniques to optimize logistics and increase customer satisfaction.
* Implemented preventive maintenance measures, reducing equipment downtime by 85% and ensuring reliable access to medical equipment for healthcare providers.
* Provided trend analysis of technology in medical equipment to facilitate the adoption of innovative technologies in clinical settings, contributing to advancements in patient care.
* Employed data analysis methods to identify actionable insights and recommend strategies for enhancing services and products, resulting in a notable increase in customer satisfaction and market competitiveness.

**EDUCATION**

**Master in Artificial Intelligence,**Yeshiva University, Katz School of Science and Health *Aug '23 — May '25*

Relevant Coursework: Predictive Modelling, Machine Learning, Neural Network & Deep Learning, *New York*

Natural Language Processing (NLP), Generative AI

**Bachelor’s in biomedical engineering,**Rajalakshmi Engineering College, Anna University *Sep '17 — Apr '21*

Relevant Coursework: Data Structures & Algorithm, Python Programming, C++, Linear Algebra*, Chennai, India*

Probability & Calculus, Biology, Biochemistry

**SKILLS**

**Programming Languages** Python, R, SQL

**Data Mining** Beautifulsoup, Scrapy, Web API

**Data Analysis and Modeling** NumPy, Pandas, Stats model, SciPy, Scikit-learn, TensorFlow, PyTorch, Neural Networks

**Data Visualization** PowerBi,Matplotlib, Seaborn, Plotly

**APIs and Web Frameworks** Rest API**,** Flask, Django

**Tools and Version Control** GitHub, Jupyter Notebook, VS Code, Postman, Heroku, Arduino

**MLOps** CI/CD, GitHub Action, MLFlow

**Big Data** Apache Spark, MongoDB

**Cloud** AWS, Azure, GCP, Oracle

**GenAI** LLMs, RAG, LangChain, LlamaIndex, Haystack

**PROJECTS**

Detection of Cardiomegaly in Dogs through CNN’s [Link](https://github.com/niranjankumarnk/Project_1-convolutionNN-Dog_Dataset-)

* Developed a custom Convolution Neural Network (CNN) architecture for image classification problems to detect cardiomegaly based on the heart size from dog X-ray images.
* Used the PyTorch framework to build and train the model, achieving an accuracy of 71%.
* Compared our custom model with the VGG-16 pre-trained model, which achieved 75% accuracy with 16 layers, while the custom model achieved 71% with 8 layers.

Prediction of Vertebral Heart Score (VHS) using Deep Learning [Link](https://github.com/niranjankumarnk/VHS_Prediction-using-Deep-Learning)

* Utilized pre-trained models InceptionV3, ResNet50, and EfficientNetB7, customizing them for the Dog X-ray image annotated dataset.
* Trained the models and evaluated the results, achieving accuracies of 86.25%, 81.5%, and 81.5%, respectively.
* Compared to benchmark results of 81.5%, 78.25%, and 84.25%, InceptionV3 and ResNet50 outperformed the benchmark.

End-to-End Data Science Project – Breast Cancer [Link](https://github.com/niranjankumarnk/BreastcancerType_Prediction)

* Developed end-to-end machine learning pipelines covering model ingestion, preprocessing, training, evaluation, and deployment stages.
* Implemented modular coding methods to enhance scalability and component reusability, leveraging diverse tools and libraries.
* Implemented Continuous Integration/Continuous Deployment (CI/CD) workflows using GitHub Actions, automating build, test, and deployment processes to achieve rapid and reliable delivery.

Statistics & Machine Learning - Stroke Prediction [Link](https://github.com/niranjankumarnk/ML_Stroke_Prediction-)

* Implemented Ensemble methods to predict stroke occurrence based on health parameters and lifestyle factors.
* Addressed challenges posed by imbalanced data using oversampling techniques like SMOTE.
* Compared results with Random Forest and Logistic Regression methods for comprehensive analysis.
* Evaluated model performance using metrics such as accuracy, precision, recall, and F1-score to assess the effectiveness of each approach in correctly predicting stroke occurrence.

**CERTIFICATIONS**

[**Oracle Cloud Infrastructure – Generative AI**](https://catalog-education.oracle.com/pls/certview/sharebadge?id=10962100C1C5493C3D85B76075B231096AE3895D2256E99336D6B593B06767B1)*July’24*

Oracle Certified Generative AI

[**Google Cloud**](https://www.cloudskillsboost.google/public_profiles/a80da888-f065-4d71-b1e3-68284b662f30) *May’24*

Google Skill Badges

[**SQL**](https://www.hackerrank.com/certificates/d902ff9f4018) *May '24*

Hacker Rank

[**Machine Learning in Drug Discovery & Cheminformatics, 2023**](https://www.linkedin.com/in/niranjan-kumar-k/overlay/1709518392427/single-media-viewer/?profileId=ACoAADV8AO8BeJcdXIRSD7Dg6bZoZbueuFyeDhI)

BDG LifeSciences Pvt. Ltd. *Mar '24*

**AWARDS**

[**First Place, "College Student, Data Scientists or Comp Sci" Category, UC Berkeley AI Summit Generative AI Hackathon, 2023**](https://www.newswire.com/news/2023-uc-berkeley-ai-summit-generative-ai-hackathon-sees-high-schoolers-22166689)

*UC Berkeley AI Summit* *Nov '23*

Received top honors for rapidly developing an innovative Generative AI application within a two-hour timeframe, showcasing advanced skills in AI techniques. Recognized for potential real-world business impact and awarded a notable cash prize of USD 1000 in a competitive international setting, as featured in a Newswire.com article.

**PUBLICATIONS**

[**Vertebral Heart Score Prediction Using Deep Learning-Based Canine Cardiomegaly**](https://www.researchgate.net/publication/382490044_Vertebral_Heart_score_Prediction_Using_Deep_Learning_-Based_Canine_Cardiomegaly?_sg%5B0%5D=xxcqgMC6XVDwtMIzIq95DxDB_St2zoSK6giRHf9oba7VoHP_91VgOpP-Zp1qX6pdhUDq8-7pCYvJOR0.OfbmeqmmEW0MGW-F-XWCdtcPghqaBvKBu0A6-5IRMMXnpqxJQA7Ie6DTuhxnw9sT6byACjKgPcD9xI-QWsPWYA&_sg%5B1%5D=ydXkiZviytlRn0ZUEwogNNj0meaSuts61Hb3McrY2_5o6H_x7L0p1Dj-J3DSY4YK8hHVv2ql0fP8eT1APgkAFmV_5gA.OfbmeqmmEW0MGW-F-XWCdtcPghqaBvKBu0A6-5IRMMXnpqxJQA7Ie6DTuhxnw9sT6byACjKgPcD9xI-QWsPWYA&_sg%5B2%5D=r9MkmMZGxwoHcQSRyszFqDjVTeNONpUk6cB7zk7aDH5ZQuVHCR-lPo9xWs4wFyaKLWCbkI5qoXl7Alb2KQ.OfbmeqmmEW0MGW-F-XWCdtcPghqaBvKBu0A6-5IRMMXnpqxJQA7Ie6DTuhxnw9sT6byACjKgPcD9xI-QWsPWYA&_sgd%5Bsr%5D=1&_tp=eyJjb250ZXh0Ijp7ImZpcnN0UGFnZSI6ImhvbWUiLCJwYWdlIjoicHVibGljYXRpb24iLCJwcmV2aW91c1BhZ2UiOiJwcm9maWxlIiwicG9zaXRpb24iOiJwYWdlQ29udGVudCJ9fQ)

ResearchGate

[**Detection of Cardiomegaly in Dogs through CNNs: Comparative Analysis with VGG-16 Model**](https://www.researchgate.net/publication/382104475_Detection_of_Cardiomegaly_in_Dogs_through_CNNs_Comparative_Analysis_with_VGG-16_Model?_sg%5B0%5D=kCFCVAajfe0P_7IGRcnu6tEpzW4702WHef7k9sk5Je0tWpfxc1X4CS2UTp_gDlxKvnoo95sTMj0mHxM.4O45Npz332JEGlp1m02puJ-SNP0eXEPR7aKEDIlfa8QG5lWBx8fH-iIXl25xB1d88-GOWgCjWhZqN4YW2zMxjg&_sg%5B1%5D=3fR_NuvrOM_u1tYd2HL4nOWauKuabgCFXYqv2QqekSII61SdBiYAf9Xs8VilIRoUSxpkSFYv5OdbmNVe2k3zUUhPnoY.4O45Npz332JEGlp1m02puJ-SNP0eXEPR7aKEDIlfa8QG5lWBx8fH-iIXl25xB1d88-GOWgCjWhZqN4YW2zMxjg&_sg%5B2%5D=KaH-6FrXDJZEMjovByTft98D5WQO2wjauvTWRjlbAL7M3pd81lH8MD2ffF0wFy4Nz2rsOiFATntHgmtOfA.4O45Npz332JEGlp1m02puJ-SNP0eXEPR7aKEDIlfa8QG5lWBx8fH-iIXl25xB1d88-GOWgCjWhZqN4YW2zMxjg&_sgd%5Bsr%5D=1&_tp=eyJjb250ZXh0Ijp7ImZpcnN0UGFnZSI6ImhvbWUiLCJwYWdlIjoicHVibGljYXRpb24iLCJwcmV2aW91c1BhZ2UiOiJwdWJsaWNhdGlvbiIsInBvc2l0aW9uIjoicGFnZUNvbnRlbnQifX0)

ResearchGate

[**Modern Technology Microphone Facemask**](https://www.mbajournals.in/index.php/JoITM/article/view/711)

International Journal of Scientific & Engineering Research (MBA Journals)

**Technology Fights Covid-19: A Brief Overview on Rapid Inventions**

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