

# Pathirage Nipun Deelaka

10320-Colombo, Sri Lanka

phone: +(94)71 1908140

M: [nipun.18@cse.mrt.ac.lk](mailto:nipun.18@cse.mrt.ac.lk)



## Profile

*"I am a self-driven recent graduate, deeply immersed in the world of deep learning and data science, equipped with a strong technical foundation. My passion lies in constantly challenging myself, stepping out of my comfort zone, and seizing every opportunity to acquire new knowledge and advancements in the realm of artificial intelligence."*

## Education

University of Moratuwa: Computer Science and Engineering Degree / **First Class** [GPA – 3.853]

Nalanda College, Colombo. / Advance Level: Z-score – 2.2622

## Publications

**SEZ-HARN: Self-Explainable Zero-shot Human Activity Recognition Network** / [AAAI'23 in Review](#)

Tools [ Pytorch ] / Architectures [Pose3d, Zero-Shot Learning, Skeleton-AE, BlazePose ]

**TEZARNet: Temporal Zero-shot Activity Recognition Network** / [ICONIP'23 Accepted](#)

Tools [ Pytorch ] / Architectures [I3D, MLCLM, VbZSL, self-attention, PGM]

**GeoRTNet: Geometric Perception based Efficient Text Recognition** / [Research Publication](#) [\[Arxiv Link\]](#)

Tools [TF, Pytorch, TF-Federated ] / Architectures [ViT, Google-SVHN model, ColorNet ]

**Neural Style Transfer with Conditional Adversarial Networks** / [Research Publication](#) [\[Arxiv Link\]](#)

Tools [TF, Keras ] / Architectures – [StyleGAN, cGAN, CycleGAN, Siamese-network]

## Projects

**ImgAnn<sup>1</sup>**{Python Library for image annotation translation} [\[+48k Downloads\]](#) (personal project)

Tools [ pandas, numpy, matplotlib, cv2, unittest, travis CI/CD ]

**DefoM<sup>1</sup>**{Deforestation tracking by remote sensing} (academic project)

Tools [ Keras, TF2, Sentinel hub, MongoDB, Flask ]

**svhnL<sup>1</sup>**{Python Library for SVHN dataset processing} [\[+3k Downloads\]](#) (personal project)

Technology [ pandas, NumPy, cv2, unittest, mat73, hdfs ]

**LyricsA-SE** {Intelligent Search Engine for Song Writers} (Academic Information Retrieval Project)

Technology [ Elasticsearch, Transformers, NLTK, h2o-wave ]

### H2O.ai Intern Projects

- Recommendation model drift and fairness analysis –Tools [ Evidently, LensKit, Aequitas, AIF360 ]
- Adversarial Text Debiasing on Sentiment classification – Tools [ hugging face, Pytorch, h2o-wave ]
- AI Maturity Indexing Engine – Tools [ nltk, spacy, beautifulsoup, selenium-WebDriver, textBlob ]
- Multi-Model Recommendation System – Architectures [ DeepFM, xDeepFM, ALS, SAR, SVD ]
- Ranking for Recommendation – Architectures [ LambdaMART, GAM-Ranking, BPR, MART, LTOR models ]
- Internal DevOps Project – Tools [ Jenkins, Docker, MakeFile, Groovy, DAI ]

## IXDLabs Data Science Projects

- Twitter Profile Analyzer –Tools [ twitter-api, h2o-wave, vaderSentiment ]
- NFT Image & Tag Generator – Tools [ Stable-Diffusion, MidJourneyAI, ESRPGAN, Pytorch ]
- BERT based Hotel review Analyzer – Tools [ , Pytorch Lightning, Hugging Face, AWS DLAMI, DistilBERT, RoBERT ]
- Opinion mining & review clustering – Tools [ NLTK, Spacy, TextBlob, genism, BRICH, t-SNE ]
- Human tracking, counting & face detection system – Tools [ Pytorch, Open-CV, FR-CNN, SSD, YOLOV2 ]
- Vision Search Valuation system – Tools [ LSH, Selenium WebDriver, Spider ]

## Experience

---

- Associate Data Scientist – IXDLabs (~1 year)
- Data Science Intern @H2O.ai [Mentored by 3X Kaggle Grandmaster] (9 months)
- IXDLabs intern- Associate-Machine learning (~1 year)
- Article writer @ “Analytic Vidhya Medium” channel
- Stack Overflow Volunteering [+500 reputations]

## Awards

---

- 5<sup>th</sup> place – Signal Processing Cup IEEE Competition
- Top Ten – Video& Image Processing IEEE Competition
- 1<sup>st</sup> place - DataStorm Competition 2021
- Top Ten – Brainstorm AI Solution Competition 2019
- 1<sup>st</sup> place - Datathon Competition 2022
- 2<sup>nd</sup> place - Datathon Competition 2023
- 2<sup>nd</sup> place – Datathon Competition 2020
- 11<sup>th</sup> place – MoraExtream Coding Comp. (1<sup>st</sup> Year)

## Certificates

---

- Deep Learning Specialization – DeepLearning.AI
- TensorFlow Developer Specialization – DeepLearning.AI
- Probabilistic Deep Learning with TensorFlow 2 – Imperial Collage London
- Fundamentals of Scalable Data Science – IMB
- Probabilistic Graphical Model 1 Stanford University
- The Data Scientist’s Toolbox – Jhon Hopkins University
- Introduction to Big Data – University of California San

## Volunteering & Extra curricula

---

- Roratactor, UOM – [Cor-chair in Rhizophora project, Web Designer and IT manager in Meastro-2019, Active member in Danuma Yathra project]
- Active member in Stack overflow & Pytorch community
- Member of the university Taekwondo team

## References

---

Dulani Meedeniya  
Professor  
Computer Science & Engineering  
University Of Moratuwa  
[dulanim@cse.mrt.ac.lk](mailto:dulanim@cse.mrt.ac.lk)  
+94 71 393 5801

Sandareka Wickramanayake  
Senior Lecture  
Computer Science & Engineering  
University Of Moratuwa  
[sandarekaw@cse.mrt.ac.lk](mailto:sandarekaw@cse.mrt.ac.lk)  
+6584257339

Shivam Bansal  
Director, Data Science.  
H2O.ai  
[shivam.bansal@h2o.ai](mailto:shivam.bansal@h2o.ai)  
+6586155702