

Yovin Ransika Yahathugoda

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LinkedIn Profile - <https://www.linkedin.com/in/yovin-yahathugoda/> | Digital Portfolio - <https://www.yovinyahathugoda.com/>

Kaggle Profile - <https://www.kaggle.com/yovinyahathugoda/competitions>

GitHub Profile - <https://github.com/yoviny/Deep-learning-Competitions>

Professional experience

Roche Products Limited, United Kingdom

20/06/2022 – Present

Data Scientist Industrial Placement

- Collaborating as a team to implement a **federated learning** architecture for unifying Multiple Sclerosis segmentation algorithms (**PyTorch**, **TensorFlow**, Matlab, **ONNX**) from different sites for 3D MRI images.
- Implemented a solution to enable reusability of solutions for countries using **unsupervised algorithms** (clustering).
- Leveraged **NLP** and Graph models (Neo4J & NetworkX) for predicting clinical study similarity and missing NCT ID's.
- Devised a PDF parsing pipeline to extract information from drug protocol documents using **OCR** and **NLP** and storing in a semi-structured format in **Snowflake**.
- Writing **reproducible code** and ensuring it is stored according to standard using **version control** and GitLab.
- Collaborated as a team based on **Agile** Framework to produce Minimum Viable Products (MVP) or Proof-of-Concept (PoC) products with existing data sources using **Python** and **machine learning**.
- Developed and deployed dashboards for data visualisation and data query applications using RS Connect.
- Technical knowledge sharing with colleagues and helping host data science workshops and hackathons.

John Keells Research (A subsidiary of John Keells Holdings PLC), Sri Lanka

02/04/2018 – 30/11/2019

Research Engineer (Computer Vision & Electronics)

- Analysed multispectral images using **image processing** to detect hidden stress fractures in wind turbine blades.
- Detection of microbial colonies using an ML classifier and segmenting colonies for surface area calculation.
- Implemented a 3D printing monitoring system using **computer vision** to detect a 3D print failure.
- Collaborated in team discussions focused on developing novel ideas with a market potential.

Education

MSc Data Science (Expected Grade – Distinction)

09/2021– 10/2023

Nottingham Trent University, UK

Received a **25% scholarship** and additional **£3,000 bursary** for previous academic performance.

Key modules: Software Engineering, Statistical Data Analysis and Visualisation, Applied AI and Data Mining, Deriving Business Value from Data Analytics, and Fundamentals of Big Data and its Infrastructure.

BEng (Hons) Electronic Engineering - 1st Class Honours (74.31%)

09/2014 – 01/2018

Sheffield Hallam University, UK

- Thesis title: Navigation System to Assist the Visually Impaired using Stereo Vision and Audio Feedback - This included Computer Vision and Machine Learning using Python, OpenCV and LIBSVM.

Core Competencies

Programming - Python, C, C#, C++, OpenCV, Git, PyTorch, TensorFlow, Jupyter, Pandas, R, Linux, NetworkX, Streamlit

Software – Eagle PCB, OrCAD, Matlab, Arduino, Visual Studio, Microsoft Office Suite, R Studio, Neo4J

Languages – English (Fluent) & Sinhala (Native)

Transferrable skills

- **Communication** – Explaining technical presentations in a simple and concise manner allowing non-technical team members to understand. Collaborating in brainstorming sessions at Roche and presenting at Data Science workshops.
- **Time management** – Committed to meeting deadlines and achieving weekly objectives in multiple projects by prioritising workloads while working as a Research Engineer at JKR and during the placement at Roche.
- **Leadership** – Organised workshops and events while serving as the President of Aeronautical Club in Secondary School. Managing team members in undergraduate group projects as group leader to ensure all work is completed. Served as

batch representative in the final year of undergraduate studies. Brainstormed and hosted Data Science hackathons/activities by collaborating with peers for Roche Advanced Analytics Network (RAAN).

- **Project management** - Identified and procured equipment and components required for the research project at John Keells Research.
- **Problem Solving/Critical Thinking** – Providing solutions to problems faced while working on novel research projects at John Keells Research. Thinking outside the box to solve novel problems and improve business processes during the placement.

Deep Learning Projects/Competitions

- Full-time Kaggle participant involved in Data Science and Deep Learning competitions in areas such as medical imaging between December 2019 to August 2021.
- Implemented a custom ResNeXt model with CutMix augmentation for OCR of Bengali handwritten characters and achieved a leader board ranking in the **top 3%** (59th out of 2059 participants).
- Developed a custom U-Net model ranking in the **top 16%** for detecting functional tissue units (FTUs) in Kidney biopsies.

Memberships

Institution of Engineering and Technology (IET) – Member (MIET)	2018 - Present
Institute of Electrical and Electronics Engineers (IEEE) - Member	2016 – Present

Certifications

Azure Data Fundamentals – Microsoft	14/01/2022
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Courses

Big Data Specialisation - University of California San Diego	03/05/2020
Deep Learning Specialisation - By Andrew Ng	08/01/2020
DL0101EN: Deep Learning Fundamentals with Keras - IBM	30/11/2019
PH125.8x: Data Science: Machine Learning - HarvardX	27/11/2019

Interests & Achievements

Extra-Curricular Activities

- Volunteering – John Keells Foundation (CSR), Buddhist Society of Lyceum International School Nugegoda
- President of Aeronautical Club at Lyceum International School Nugegoda.
- Shortlisted in two categories in the [Astronomy Photographer of Year 2021](#) competition hosted by Royal Museums Greenwich, UK. Nominated for the People's Choice Award in the same competition.

References

References available upon request.