

# Hasarindu Perera

UNDERGRADUATE · ML ENGINEER

[hasarinduperera.github.io](https://hasarinduperera.github.io) [HasarinduPerera](#) [HasarinduPerera](#) [HasarinduPerera](#)

## Summary

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As an undergraduate with a passion for AI, and cognitive sciences, I am fascinated by the potential of these fields to transform our world. Through my studies and extracurricular activities, I have developed a strong foundation in the core concepts of AI, machine learning, and reinforcement learning. I am committed to expanding my knowledge and skills in this field, and am excited about the opportunities to apply AI to solve complex problems and create positive change.

## Education

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### University of Moratuwa

*Moratuwa, Sri Lanka*

BACHELOR OF INFORMATION TECHNOLOGY (EXTERNAL)

*Nov 2020 - 2024 (Expected)*

- Courses: Technical Writing, Information Management, System Analysis and Design, Computer Systems and Mathematics for IT.

### South Eastern University of Sri Lanka

*Oluvil, Sri Lanka*

BACHELOR OF SCIENCE (MANAGEMENT AND INFORMATION TECHNOLOGY)

*Jul 2019 - Jul 2023 (Expected)*

- Courses: Java Components and Technology, Database Management Systems, Information Systems Security and Business Law.

### BCS, The Chartered Institute for IT

*Colombo, Sri Lanka*

INTERNATIONAL HIGHER EDUCATION QUALIFICATIONS (HEQ)

*Sep 2017 - Apr 2019*

- BCS level 5 Diploma in IT
- BCS level 4 Certificate in IT

### Nalanda College

*Colombo, Sri Lanka*

PRIMARY AND SECONDARY EDUCATION

*Jan 2002 - Aug 2015*

- GCE Advanced Level - Commerce Stream

## Experience

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### Freelancer

*Colombo, Sri Lanka*

WEB DESIGNER

*Jan 2013 - 2021*

- I have extensive experience developing back-end systems for online counseling websites and serving as a full-stack developer for two local e-commerce platforms. Furthermore, I have created more than 20 business websites and have provided web design services for international companies that align with their marketing strategies.

## Online Certification

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### Hugging Face

*Online, Hugging Face*

DEEP REINFORCEMENT LEARNING

*Mar 13, 2023*

- Studied Deep Reinforcement Learning in theory and practice. Learnt to use famous Deep RL libraries such as Stable Baselines3, RL Baselines3 Zoo, Sample Factory and CleanRL. Trained agents in unique environments such as SnowballFight, Huggy the Doggo, VizDoom (Doom) and classical ones such as Space Invaders, PyBullet and more.

### Udacity

*Online, udacity*

AI PROGRAMMING WITH PYTHON NANODEGREE

*Dec 04, 2022*

- Learned and refreshed skills in Python, NumPy, pandas, Matplotlib, PyTorch, Calculus, and Linear Algebra. See Certificate

## Google Cloud

[Online, Coursera](#)

CLOUD DATA ENGINEER SPECIALIZATION

Mar 21, 2021

- Completed an accelerated Professional Certificate program in Big Data Solutions, gaining expertise in serverless data analysis, productionizing machine learning models, and practical skills for the role of a Data Engineer.  
See Certificate

## DeepLearning.AI

[Online, Coursera](#)

DEEP LEARNING SPECIALIZATION

Dec 3, 2020

- Completed a Specialization in Neural Networks, mastering the design and optimization of various architectures such as CNNs, RNNs, LSTMs, and Transformers using Python and TensorFlow for real-world applications.  
See Certificate

## Alberta Machine Intelligence Institute

[Online, Coursera](#)

MACHINE LEARNING: ALGORITHMS IN THE REAL WORLD SPECIALIZATION

Nov 2, 2020

- Completed a machine learning Specialization, learning to apply machine learning techniques to automate data analysis.  
See Certificate

## Duke University

[Online, Coursera](#)

THE BRAIN AND SPACE

September 9, 2020

- Completed a course on spatial cognition, gaining an understanding of how the brain processes sensory and motor information to create our sense of spatial location and its influence on cognitive abilities.  
See Certificate

## Johns Hopkins University

[Online, Coursera](#)

FUNDAMENTAL NEUROSCIENCE FOR NEUROIMAGING

August 30, 2020

- Completed a course on neuroimaging methods and basic neuroscience concepts, gaining an understanding of human neuroanatomy, cognitive domains, and experimental design.  
See Certificate

## University of Washington

[Online, Coursera](#)

COMPUTATIONAL NEUROSCIENCE

September 4, 2020

- Completed a course on computational methods for understanding nervous system function, exploring principles related to vision, sensory-motor control, learning, and memory.  
See Certificate

## The University of Edinburgh

[Online, Coursera](#)

PHILOSOPHY AND THE SCIENCES: INTRODUCTION TO THE PHILOSOPHY OF COGNITIVE SCIENCES

December 31, 2020

- Completed a course on the intersection of philosophy and cognitive sciences, gaining an introduction to key areas and topics in the field.  
See Certificate

## Yale University

[Online, Coursera](#)

INTRODUCTION TO PSYCHOLOGY

March 28, 2021

- Completed a comprehensive course on the scientific study of thought and behavior, covering topics such as perception, learning, memory, decision-making, and social behavior.  
See Certificate

## Projects

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### AI/ML PROJECTS

**PPO LunarLander-v2 Optuna** Automatic hyperparameter tuning was performed using Optuna.

**DreamBooth model for the Sigiriya rock** Stable Diffusion model fine-tuned on Sigiriya rock images for the landscape theme.

**MAB Implementation** Practical Multi-Armed Bandit Algorithms Implementation in Python

**Super Mario RL Agent** RL agent that learns to play Super Mario Bros

**SnakeEnv** Snake Game Environment Using OpenAI Gym

**Use a Pre-trained Image Classifier to Identify Dog Breeds** The goal of this project is to use a pre-trained convolutional neural network to identify whether an image is of a dog or not, and if it is, classify its breed.

**Implement a Convolutional Neural Network with PyTorch** In this project, I built a Python application that can train an image classifier on a dataset, then use the trained model to predict new images. The project gave me hands-on experience with building and training deep learning models using the PyTorch library.

**Reinforcement Learning Implementations** While studying the Deep RL course by Hugging Face, I have trained several reinforcement learning models such as PPO, Reinforce, DQN, and A2C.

## WEB DEVELOPMENT PROJECTS

**eCraft - An online multi-vendor marketplace for Sri Lankan traditional arts and crafts** A complete fully functional multi-vendor online marketplace created using WordPress and WooCommerce

**ThermalR - An online marketplace for Sri Lankan made electric bikes and converted tuk-tuks** A complete fully functional online marketplace created using WordPress and WooCommerce

**Falcon E Racing - Sri Lanka's first Formula Student Electric Vehicle** A complete fully functional website created using WordPress

## Technical Skills

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**Languages** Java, C++, C#, Python, HTML, CSS, PHP, JavaScript

**Frameworks** TensorFlow, PyTorch, Keras, Optuna, Stable Baselines, OpenAI, Django, WordPress

**Database** MySQL, PostgreSQL, MongoDB

**Other technologies** Linux, Git, Node.js, Apache, Docker Engine, Blockchain, AWS, Google Cloud, IBM Cloud

## Achievements

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### INTERNATIONAL

2023	<b>Contributor</b> , Omdena	<i>Sri Lanka</i>
2022	<b>Finalist</b> , AWS DeepRacer Student League (achieving 8th place out of over 21,000 students)	<i>Sri Lanka</i>
2022	<b>Ambassador</b> , DeepLearning.AI	<i>Oluvil, Sri Lanka</i>
2022	<b>Finalist</b> , Coder One - AI Sports Challenge 2022	<i>Sri Lanka</i>
2022	<b>Qualification Round</b> , Google - Hash Code 22	<i>Sri Lanka</i>

### DOMESTIC

2022	<b>The Chair</b> , British Computer Society Student Chapter - SEUSL	<i>Oluvil, Sri Lanka</i>
2022	<b>Program Committee Member</b> , IEEE Student Branch - SEUSL	<i>Oluvil, Sri Lanka</i>
2022	<b>University Representative</b> , Sustainable Education Foundation	<i>Oluvil, Sri Lanka</i>
2021	<b>Technology Advisor</b> , Colombo Children's Book Society	<i>Colombo, Sri Lanka</i>
2021	<b>President</b> , Mozilla Campus Club - SEUSL	<i>Oluvil, Sri Lanka</i>
2019	<b>Acting President</b> , Management and Information Technology Club - SEUSL	<i>Oluvil, Sri Lanka</i>
2014	<b>Committee Member</b> , Computer Society of Nalanda College	<i>Colombo, Sri Lanka</i>
2014	<b>Bronze Award</b> , Pulz' 14 - The National ICT Convention	<i>Colombo, Sri Lanka</i>

## Professional Affiliations

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### BCS, The Chartered Institute for IT

STUDENT MEMBER

*Colombo, Sri Lanka*

*2017 - Present*

### Institute of Electrical and Electronics Engineers (IEEE)

STUDENT MEMBER

*Colombo, Sri Lanka*

*2021 - Present*

### IEEE Computational Intelligence Society

STUDENT MEMBER

*Colombo, Sri Lanka*

*2021 - Present*

### Sri Lanka Association for Artificial Intelligence (SLAAI)

STUDENT MEMBER

*Colombo, Sri Lanka*

*2021 - Present*