

AAKARSHAN CHAUHAN

Dehradun, Uttarakhand, India

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SKILLS AND INTERESTS

Languages	C, C++, C#, Python, Scala, Julia,
Interests	Reinforcement Learning, Game Development, Computer Vision
Tools	TensorFlow, PyTorch, Keras, Unity, Unreal Engine, Pandas, Arduino
Visualization Tools	Tensorboard, Weights and Biases, Matplotlib, PyPlot

EXPERIENCE/INTERNSHIPS

Research Internship	June 2021 - July 2021
<i>Efficient Data Selection and Routing using AI</i>	<i>Graphic Era Deemed to be University</i>
<ul style="list-style-type: none">• Trained a Deep Q Network in a simulated 5G environment.• The DQN efficiently selects and transmits healthcare data from patients to doctors.	

PROJECTS

Behavioral Cloning for self driving (Link)	January 2021 - March 2021
<ul style="list-style-type: none">• Implemented a self driving agent using computer vision and behavioral cloning.• Designed a driving simulator in Unity to collect the observations and test the agent on.• Agent learnt to follow the road and take turns properly without going off track.• Tools: Unity, C#, Python, TensorFlow	
Variational Auto-Encoder for MNIST digits (Link) (Demo)	August 2021 - September 2021
<ul style="list-style-type: none">• Created a VAE with 10 latent vectors and trained it using the MNIST digits dataset.• Implemented a simpler version of the algorithm without much quality loss in PyTorch.• Deployed the model on Streamlit and made it's latent Vectors intractable.• Tools: Python, PyTorch, Streamlit	
Reinforcement Learning in Procedurally Generated Environments (Demo)	February 2021 - October 2021
<ul style="list-style-type: none">• Created a 3D platformer game in Unity where platforms are procedurally generated.• Trained an agent to traverse the platformer and compared it's results against agents trained on static environments.• Achieved a more robust agent with a higher success rate in unseen environments.• Tools: Unity, ML-Agents, Python, PyTorch	
Discord Chat Moderation Bot (Link)	July 2020 - September 2020
<ul style="list-style-type: none">• Created and deployed a Discord bot that is able to predict the sentiment of a comment/message• Trained a deep neural network for sentiment analysis using Reddit comments.• The bot was able to predict the sentiment of the comment with over 85% accuracy.• Tools: DiscordPy, Python, TensorFlow, NLTK	

EDUCATION

Bachelor of Technology

June 2019 - May 2023

Graphic Era Deemed to be University, Dehradun.

Computer Science and Engineering, CGPA: 9.41/10.00

CBSE, Class 12

March 2018 - March 2019

Army Public School Shillong, Meghalaya, India, 88.5%