

# Aakarshan Chauhan

9953774383 | [aakarshanc01@gmail.com](mailto:aakarshanc01@gmail.com) | [LinkedIn](#) | [GitHub](#)

## EDUCATION

### Army Public School Shillong

*Class 12 - Physics, Chemistry, Mathematics and Computer Science | Result : 88.2%*

Shillong, Meghalaya

*April. 2018 – March 2019*

### Graphic Era (Deemed to be) University

*Bachelors in Technology - Computer Science and Engineering | S.G.P.A : 9.35*

Dehradun, Uttarakhand

*July 2019 – June 2023*

## EXPERIENCE

### Undergraduate Research Assistant

*Graphic Era (Deemed to be) University*

June 2021 – August 2021

*Dehradun, Uttarakhand*

- Trained a Deep Q Network to select a route and path for file transmission in a simulated 5G environment.

### Machine Learning Research Intern

*IPREP Learning Solutions Pvt. Ltd.*

Jan. 2022 – May 2022

*Mumbai, Maharashtra*

- Automated tasks using machine learning for an Edtech Platform.
- Created a personalized recommendation system for recommending challenging questions to students.
- Automated the translation of questions from English to multiple Indian languages.

## PROJECTS

### Reinforcement learning with Procedural Generation | *Python, C#, Unity*

Dec. 2021 – June 2022

- Created a procedurally generated 3D environment in Unity
- Trained an agent using reinforcement learning to traverse the procedurally generated environment.
- Obtained a robust agent that outperformed traditional agents trained in static environments.

### Behavioral Cloning for Self Driving | *Python, C#, Unity*

Jan 2021 – March 2021

- Designed a driving simulator in Unity.
- Collected multiple trajectories over a range of different environments/ roads.
- Implemented a self-driving agent using computer vision and behavioral cloning.
- Created challenging environments for the self-driving agent to evaluate itself and gather more observations.

### Brain Tumor Segmentation and Classification | *Python*

April 2022 – June 2022

- Used MRI scans of the brain for segmentation of tumors and classification in 3 categories .
- Trained a 3D U-Net for segmentation and the classification task.
- Achieved an accuracy of 99.2 % and IOU of 71.8 on the BraTS2020 dataset.

### Discord Moderation Bot | *Python, SQL*

Aug. 2020 – Dec. 2020

- Designed a moderation bot that can be added to discord servers.
- Used sentiment analysis to classify and report certain messages as negative or non-negative.
- Added a Question Answering system to answer user queries related to a specific topic or context.
- Added additional server management functionality such as automatic role assignment and activity monitor of each member.

## TECHNICAL SKILLS

**Languages:** Python, HTML/CSS, C/C++, C#

**Frameworks:** PyTorch, TensorFlow

**Libraries:** Pandas, NumPy, Matplotlib, OpenCV, Pycord

## EXTRACURRICULAR/COMPETITIONS

Amazon ML Challenge

August 2021

- Secured 408/3290 teams in the All India Natural Language Processing (NLP) Classification competition

AIcrowd AI Blitz XI

July 2021

- Secured 54/218 participants in the self-driving focused competition