Anwesan De

+91 8509098064 | anwesan123de@gmail.com | linkedin.com/in/anwesan | github.com/anwesan

EDUCATION

Birla Institute of Technology and Science, Pilani — Hyderabad, Telengana, India
Bachelor of Engineering in Electronics and Instrumentation, Minor in Robotics — *Aug. 2019 – July 2023*

EXPERIENCE

Undergraduate Research Intern — Nov 2021 – Present
Indian Institute of Technology, Kanpur — *Kanpur, Uttar Pradesh*
- Working with the Dept. of Cognitive Science to develop effective ways to combat Parkinsonian Tremor
- Analysis of instruments and signal processing methods to identify tremors and counteract the effects

Undergraduate Student Researcher — Aug 2021 – Present
Dept. of Pharmacy, Birla Institute of Technology and Science, Pilani — *Hyderabad, Telengana*
- Analysis of Local Field Potentials
- Applications of signal processing methods
- Developed MATLAB and Python code to automate the process of reading , analysing and generating the analysis report

Summer Intern — May 2021 – July 2021
Military College of Electronics and Mechanical Engineering — *Secunderabad, Telengana*
- Worked on developing soldier's health monitoring system
- Applied the use of Body Sensor Networks(BSN) and Arduino UNO
- Developed an algorithm which takes into account the various bodily parameters and predict the health condition of the soldier

PROJECTS

AI based Google Chrome Dinosaurs Game | *Github Link* — Mar 2021 – April 2021
- A Deep Q Network algorithm was used to train the agent
- A Convolutional Neural Network was used to analyze the pixel data
- A Custom Gym environment was created to access the game on Google chrome and manipulate it

Mass mailing encrypted PDF | *Github Link* — June 2021 – July 2021
- It encrypts a PDF with the date of birth of the receiver(by default) and sends it to the receivers
- This script uses a tkinter gui
- A sqlite3 database stores the information of the users(name, DOB, Email)
- It is completely customisable and new features are being added (text-to-speech etc.)

Applying Reinforcement Learning Algorithms on gym environment | *Github Link* — Apr 2021 – May 2021
- Using standard Gym environments I have used various algorithms like Q table and Deep Q Network to teach the agent in solving the environments
- Highway-v0 : Trains the AI to manage traffic
- CartPole-v0 - Trains the AI to balance the pole on a cart

VOLUNTEERING

Phoenix Association, Electrical Engineering Association — Sep 2019 – Present
- Contributed to its annual magazine, Livewire and wrote the cover story
- Member of the organizing body for our technical fest , ATMOS and helped in organising the Paper Presentation event.

cruX, Computer Programming Club — Mar 2021 – Present
- Was part of the team that organised a summer training program in Machine Learning for the students of Bits Pilani

Rotaract Bits Pilani — Sep 2020 – Oct 2021
- Served as the Secretary of the club for a brief period (July 21 - Oct 21)
- Collaborated with REAP Benefit on water waste analysis and solutions.

Achievements and Publications

Amazon Machine Learning Summer School   July 2021
- Shortlisted for Amazon Ml summer School where Ml topics like Supervised Learning, dimensionality reduction, Probabilistic Graphical model from among the top 20 institutes of India.

Hacktoberfest '21   Oct 2021
- Took part and completed this prestigious open-source hackathon

Member, Millennium Campus Network   Aug 2021 - Dec 2021
- Selected for membership for the prestigious Millennium Campus Network program a joint effort under United Nations.

Publications in Towards Data Science   May 2021
- *Hitchhiker's Guide to Sentiment Analysis using Naive-Bayes Classifier* - An article which serves as an introduction to Naive Bayes Sentiment Analysis
- *The Intuition behind Reinforcement Learning* - An Article on the intuitive introduction to Reinforcement Learning and its components

Technical Skills

Languages: Python, C, Java, MATLAB, LaTeX
Courses: Computer Programming (CS F111), Operating Systems, Object Oriented Programming, Internet of Things
Developer Tools: Git, VS Code, PyCharm, MATLAB, LTSpice
Libraries: pandas, NumPy, Matplotlib, TensorFlow, Scipy