UNNIKRISHNAN R. MENON

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Education

B.Tech in Electrical and Electronics Engineering

02/2017 - Present

Vellore Institute of Technology, Vellore Current CGPA (3 semesters): 8.62

Class 12 Board Examination (CBSE): 94.2%

2017

Summer Fields School, New Delhi

Class 10 Board Examination (CBSE): 10 CGPA

2015

Summer Fields School, New Delhi

Research Interests

• Artifical Intelligence

• Machine Learning

• Cryptography

• Computer Vision

• Socket Programming

Astrophysics

• Reinforcement Learning

• Genetic Algorithm

Technical Skills

• Microcontroller – Arduino, Raspberry Pi, 8051 Assembler, NVIDIA Jetson

• Programming Languages – Python, C++, C, Java, GoLang, Assembly

• Mathematical Packages – MATLAB, R

• Typesetting Software – LATEX

• Other – TensorFlow, Keras, OpenAI Gym, NumPy, Qiskit

Work Experience

02/2019 - Present

Technical Head of Electrical Department roboVITics, the official robotics club of VIT

07/2018 - Present

High Power Circuit Designer

The team designed a 120 lbs combat robot that has performed well in international Robo Wars Achievements

- Finished in top 7 internationally at RoboWars, TechFest'1, IIT Bombay
- Secured third position in RoboWars, Kurukshetra'19, Anna University

12/2017 - 02/2019

Core-Committee Member roboVITics, the official robotics club of VIT

• Successfully completed multiple robotics projects involving Machine Learning, Computer Vision, Artificial Intelligence, IoT etc.

Achievements

Winner of HackerTech 2019

12/2019

Secured First Position in this 24 hr long Hackathon where I worked on project SPARC (Smart Power Allocation using Reinforced Clusters).

Winner of VIT Hack 2019

09/2019

Won VITHack organized by VIT University in collaboration with Honeywell

Winner of Developer's Sprint of Code Hackathon by CodeChef

02/2019

Secured the First Position in this 36 hour Hackathon. I worked on the hardware and a facial emotion recognizer for an electoral system that eliminates majority of the problems in the existing system

Quora Top Writer 2018

01/2018 - Present

Got the coveted Top Writer's Quill on my Quora profile for writing quality technical content. Got New York Time's subscription and a t-shirt as a reward from Quora

6 NEO Observations (All India Asteroid Search Campaign)

2016

I used a software called Astrometrica to detect potential celestial objects and I ended up spotting 6 Near Earth Objects (NEO's)

Personal Projects

09/2019 - 10/2019

Path Prediction for Smart Vehicles

• A Path Prediction Algorithm which forecasts future path taken using RNN-LSTMs and on top of that optimizes the predicted trajectory using Deep Q-Learning Algorithm.

08/2019 -Present

Riff—Raff Encryption

• Decimal (Negative/Positive, Unranged) Encryption for Unbreakable, Impenetrable Security.

12/2018 - 02/2019

Self Learning Crawler

• This bot combines the Q Learning algorithm with a robotic arm to come up with an optimum policy for moving forward

05/2019 - 12/2019

RSA Encrypted Password Online Storage

• This code can be used to save your passwords or other confidential data remotely to a server with a layer of RSA encryption (coded from scratch) without any worries of it getting hacked.

02/2019 - 02/2019

Comprehensive Electoral Solution Suite

• Secured First Position in DEVSOC'19

01/2019 - 02/2019

Prepaid Energy Credits based Power Distribution System

• Machine learning based algorithm for predicting power usage in a common household.

10/2018 - Present

AI Development for Video Games

• Deployed genetic algorithms and other advanced reinforcement learning algorithms in various Video Game environments like Super Mario, Pacman, Snakes, Flappy Birds etc.

05/2018 - 06/2018

TensorFlow ChatBot

• An RNN and LSTM based Chatbot that responds well to meaningful queries.

02/2018 - 04/2018

Autonomous Rubik's Cube Solver

• Developed an algorithm in under 800 lines of C++ code that predicts the correct moves to solve a scrambled $3 \times 3 \times 3$ Rubik's Cube.

References

Awnon Bhowmik, College Laboratory Technician Department of Mathematics CUNY Borough of Manhattan Community College +1 (929) 462 8832, abhowmik@bmcc.cuny.edu