Pawan Kumar Saini

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Education

Expecting 2020	B.Tech,4th Year (Electrical Engineering)	IIT Bhubaneswar	— 8.36/10
April 2015	Class XII(RBSE)	GPS Gudha, Rajasthan	— 94.60%
April 2013	Class X (RBSE)	GPS Gudha, Rajasthan	— 88.33%

Experiences

Machine Learning — Summer Internship Programme

IIT, Bombay — May '19 - Jul '19

FaSoft project

Developed a software for fault detection and classification in micro grid using Python.The user interface (front-end) was designed with 'Tkinter' library and also made a automatic mail generator for communication.

Developed a Deep Learning model(ANN) that can detect and classify the fault and crossed verify all results using machine learning algorithm (SVM). The above deep learning model was trained and tested using the data generated from the simulation model of micro grid.

Software Designer — Smart India Hackthon 2019 Competition

SIH,19 Software edition, Indore — March 2019

Predicative Analysis of Pharmaceutical Equipment using Deep Learning:

Main objective was to design a software to predict the maintenance of equipment using deep learning by collecting all data(take all possible case) with the help of sensors, tracking operating condition performance of machine, factory tooling, predicting breakdowns malfunctions.

Deep learning model 'LSTM' was used to prediction purpose.

Digital Designing Engineer — Winter Internship

Kuruganti Computers Pvt. Ltd., Chennai, Tamil Nadu — Dec,2018

Digital IC Tester

Aim was to design a setup to check 'Digital IC 74' working status. Used micro-controller 8085 and used Assembly and embedded c language form code to check 74 series ics.
Started with the embedded language of 89s52 microcontroller and encountered with development board R1, ADC0804, DAC0800 and display and keyboard.

Projects

Facebook User Information

- Project aimed at constructing of Data-Visualization Model that can give you all your past activity on Facebook.
- Involved technique like File Handling, Data Prepossessing, Data Visualization using Python Libraries like Pandas, Numpy, Matplotlib.

Tic Tac Toe game

- The project is aimed at building TIC TAC TOE game for NxN matrix . The project is implemented with programming language C++ and designed in compiler itself.
- The concept used in the projects are OOPS and Greedy algorithm.

Wind Power Forecasting Model

- Develop a deep learning model for wind power forecasting with wind energy economic dispatch for a wind power plant considering with all variable parameters that affected wind power. Model is based on the correlation, the features data of turbine groups in certain distance are filtered to further optimize the forecasting effect on wind power.
- Used Deep Learning Model(LSTM Neural Network) for analysis of wind turbine data for all different possible case.

Design a Snake Game

- Designed a game in which there is a snake which has head, tail and the snake has to eat the food to increase the score, as the score increases, the size of the snake will increases and if it hits the boundary or hit its tail, the game will over.
- Simply snake is designed in c++ compiler.

Handwritten digit Recognition

- The project aim into recognize any handwritten digit trained on MNIST dataset. This project involved the techniue like Deep Learning to achieve near state of the art performance on the MNIST handwritten digit recognition task in Python using the library like Keras ,pandas, sklearn .

Other Hubby project:

IOT based Self-parking Car Developed a logic control algorithm for self parking of a small model car. Once an appropriate control characteristic is obtained and then exported to a file in order to be downloaded to the controller and car will begin parallel park into that space. .

Positions of Responsibility

Jan '16 - present	Core Member, "Alma Fiesta", the Annual Socio-Cultural Fest of IIT Bhubaneswar.
Aug '16 - Mar '17	Member, Public Relations, E-Summit , IIT Bhubaneswar

Technical Skills

Programming Languages: C++, C, Python, Java and Matlab
Embedded Languages: Embedded C, Assembly
Software and Utilities: Web-Development, Arduino, Micro-controller and Simulink
Strongest Area: Data Structure, Algorithm and Machine Learning

Award and Achievements

- Got 99.66 percentages marks in PCM subjects in 12th standard RBSE.
- Consistently awarded Merit Cum Scholarship throughout Studies for securing highest grades
- Received a certificate of excellence and HP laptop from Rajasthan government for the excellence academic performance in class 10th level board exam
- Qualified among top 0.05% students in JEE Mains and Advanced,2016
- Winner of Egglorious Battle Innovation Challenge organised by Design Innovation Center, IIT Bhubaneswar. in the year2017.

Interests

Software Development
Machine Learning and Analytics

Relevant Courses

CS1001:Data Structures and Algorithms
Coursera: Algorithms
Coursera:Machine Learning by Stanford University
Udemy:Machine Learning A-Z, Hands on Python & R in Data Science