Akshay. H. Shah

(+91)
6900400818|akshayhitendrashah@gmail.com|https://github.com/lalabhai18|
https://www.hackerrank.com/akshay_18

EDUCATION BACKGROUND 2018-present

BTech in Mechanical Engineering **IIT GUWAHATI**, ASSAM,INDIA

(Minor in **Computer Science**) (CPI – 8.65)

Courses: Data Structures and Algorithms, Machine Learning, Neural Networks and Deep Learning, C Programming, Python, Data Mining, Fundamental Theories of Computer Science, Convolutional Neural Networks, Hyperparameter Tunning In Neural Networks, Real Analysis, Linear Algebra, Differential Equation.

TECHNICAL SKILLS AND TOOLS

Python, C, NumPy, Pandas, Scikit-Learn, Matplotlib, Seaborn, Tensorflow, Keras, Jupyter, Octave, Google Colab, ANSYS, Arduino, Solid Edge

PROJECTS

Heart Rate Monitoring System (Arduino, human nervous system)

- Design and Implemented a heart monitoring machine which takes **human signals(3 lead system**) as input and gives pulse rate as output(**seven segment display**).
- Used **AD-8232**, **Arduino**, **gel.**

Data Science Hackathon (python, seaborn, scikit-learn, boosting techique)

- Implemented statistical techniques like **univariate** and **bivariate** analysis to perform data engineering
- Applied supervised machine learning algorithms like **xgboost, lightgbm, ridge regression, lasso regression, random forest, decision tree** achieving accuracy of **90%**.
- Used **PCA algorithm** for **dimensionality reduction** and **tuned hyperparameters using Bayesian optimization.**

Indian Liver Patients - (python, seaborn, scikit-learn)

- Used various classification algorithms like **Xgboost, Lightgbm, Random Forest, Decision Tree, Naïve Bayes**
- Achieved accuracy about **88%**.
- **Tuned hyperparameters** using **grid search**

Medical Cost Insurance Forecast (python, seaborn, scikit-learn, bagging technique)

- Used machine learning algorithms like **random forest, decision tree** and **elastic net** and applied bagging technique to predict the cost achieving accuracy of **88%**.
- **Tuned hyperparamater** using **randomized search**

Digit recognition using neural networks (python, tensorflow)

- Performed image pre-processing on MNIST image dataset and implemented neural network architecture comprising of **3 layers** and used **relu** and **softmax** as activation function.
- Achieved and accuracy of **95%**
- Tuned hyperparameter liked learning rate, no of neurons in dense network, activation function and Used **Adam optimizer**

EXTRA CURRICULUM

- 3rd in inter hostel ml hackathon
- Played Chess in Inter hostel competition
- City representative of Technothlon
- MMC(Mess Management Committe) member

CERTIFICATE

- **C Programming (seed infotech (global partner of oracle))**
- **Machine learning (Stanford university)**
- **Neural Networks and Deep Learning (Stanford university)**
- **Improving neural networks (Stanford university)**
- **Convolutional neural networks (Stanford university)**
- **Basics of Matplotlib**
- **Linear Algebra in ML**