KAVITA KAITHWAS | 16CH10019

CHEMICAL ENGG. (B.Tech 4Y)

EDUCATION

Year	Degree/Exam	Institute	CGPA/Marks
2020	B.TECH	IIT Kharagpur	6.23 / 10
2015	CBSE	Jawahar Navodaya Vidyalaya, Rangareddy,Telangana	86%
2013	CBSE	Jawahar Navodaya Vidyalaya, Pratapgarh,Uttarpradesh	10 / 10

INTERNSHIPS

MACHINE LEARNING INTERN | TATA CONSULTANCY SERVICES| MAY 2019 - JUL 2019
- Worked as a member of innovation team and solved **Supply Chain Managment** problem.
- Applied **Advantage Actor- Critic Method** of **Reinforcement Learning** to find best path for the problem.
- Implemented **Genetic Algorithm** to **tune the Hyperparameters** of model and hence **optimize** the business **rewards**.

PROJECTS

HAND-WRITTEN DIGIT RECOGNITION |NEURAL NETWORKS | DEC 2018
- Trained a **3-layer Neural Network** with **5000** training examples (images) by **randomly initializing** the parameters.
- Implemented **Backpropagation** to learn the parameters of the **Neural Network** for hand-written digit recognition.
- Added **Regularization** to the model to tradeoff between **bias and variance** and improved the model generalization.
- Obtained a training set accuracy of 95.3 percent and test set accuracy of 87.3 percent.

SPAM CLASSIFICATION | SUPPORT VECTOR MACHINE | NOV 2018
- Built a spam filter using **SVM** with **linear kernel** on data set of mails with 4000 training and 1000 test examples.
- Preprocessed mails using **text analytics techniques** like **stemming**, **normalization** on URLs, numbers, characters.
- Performed **feature extraction** to convert each email into a feature vector of length **1899**.
- Trained SVM model with training examples and obtained a training accuracy of **93.4 %** and test accuracy of **90.5 %**.

SKILLS AND EXPERTISE

- **PROGRAMMING LANGUAGES :** C(Proficient) | Python(Proficient) | C++(Proficient) | R, SQL(Beginner).
- **SOFTWARES:** Aspen | MATLAB | Microsoft Excel | R studio | Solid Works.
- **PYTHON PACKAGES/LIBRARIES:** ScikitLearn | Matplotlib | Pandas | NumPy | SciPy | Tensorflow | Keras.

COURSEWORK INFORMATION

Machine Learning **|** Rienforcement Learning **|** Applied Data Science in Python **|** The Analytic Edge **|** Regression Model **|** Programming Data Structures **|** Computer Aided Process Engineering **|** Partial Differential Equations **|** Economics **|** Thermodynamics **|** Fluid mechanics **|** Transform Calculus **|** Business Plan Development.

COMPETITION/CONFERENCE

HSBC HACKATHON | IIT KHARAGPUR | (March 2019)
- Secured **2nd Rank** among 200 teams participated in a Data Science Hackathon conducted by HSBC at IIT KGP.
- Applied **ARIMA** model to quantize the happiness of a person based on his spending patterns and used Z- Score.
- Used **Google Maps API** and **Bayes Optimization** to find the most feasible conditions and suitable location for a High School to flourish in a city.

AWARDS AND ACHIEVEMENTS

DAKSHANA SCHOLAR
- Qualified Grand Dakshana Selection Test in 2013, conducted by Dakshana Foundation (a non-profitable organization), which provides educational scholarships to selected around 450 JNV students across the country.

POSITIONS OF RESPONSIBILITY

COLLEGE REPRESENTATIVE | DAKSHANA ALUMNI ASSOCIATION |AUG 2017- JUL 2018
- Managed Dakshana alumni network base and ensured proper participation of alumni in various events.
- Improved student participation by 15% year-over-year by regularly organizing mentorship events.

MAINTENANCE SECRETARY | AUG 2017- JUL 2018
- Got elected as Maintenance Secretary for Mother Teresa Hall of Residence- IIT-KGP for the academic session 17-18.
- Managed the Grand Festival ILLUMINATION of MT Hall and various hall events like farewell and Hall day.

EXTRA CURRICULAR ACTIVITIES

- **NCC Cadet, Air Wing, IIT Kharagpur,** volunteered to the Primary Schools students and interacted with them.
- Participated in Sports (VolleyBall)and played for regional level.
- Volunteered as **Scouts and Guides** in Navodaya Vidyalaya Samiti.