KAUSHIK METHA

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EDUCATION

B. Tech in Computer Engineering **Aug 2018 – Present**
K. J. Somaiya College of Engineering, Mumbai *CGPA: 9.15*

RELEVANT COURSEWORK

Linear Algebra, Artificial Intelligence, Machine Learning, Computer Vision, Reinforcement Learning, Calculus, Probability, Statistics, Data Structures, Object Oriented Programming, Database Management

RELEVANT SKILLS

Coding Skills	:	Python, SQL, Java, C, JavaScript, HTML, CSS, C++
Frameworks	:	Django, Flask, TensorFlow, PyTorch, Scikit-Learn, OpenCV
Technological Skills	:	MySQL, PostgreSQL, AWS, Heroku, MATLAB, Google Colab, Github

CERTIFICATIONS

Deep Learning Specialization - Deeplearning.ai **Jul 2020 – Dec 2020**
Application of Artificial Neural Network, Deep Learning, Regularization and Optimization using Pandas, NumPy, TensorFlow

Applied Data Science with Python Specialization - University of Michigan **Apr 2020 – Aug 2020**
Application of Statistics, Machine Learning, Data Visualization using Python toolkits

Data Science Professional Certificate - IBM **Dec 2019 – Jul 2020**
Defining Data Science, Data Science Methodology, SQL, Data Analysis and Visualization, Machine Learning using Python libraries like Pandas, NumPy, Matplotlib, Scikit-Learn

RESEARCH EXPERIENCE

Backend Developer – *Peergrade Review System* **Jun 2020 – Sep 2020**
Department of Computer Engineering, K.J. Somaiya College of Engineering

- Deployed a web application on Heroku using Django and PostgreSQL for database management
- Devised a heuristic assignment algorithm using Python to develop a peergrade review system
- Developed functions using Python and performed data querying to render and display relevant data

Data Analyst **Sep 2020 – Feb 2021**
Somaiya Institute for Research and Consultancy (SIRAC)

- Evaluated the reliability of Wearable Fitness Tracker against standard medical devices to measure COVID-19 parameters
- Analysed patient's data using techniques like t-test, Bland Altman Plot and Distribution Plots
- Reported key metrics and visualizations using a web-assisted dashboard for decision making

ACADEMIC PROJECTS

Deep Q-Learning – *Flappy Bird*

- Automated Flappy Bird, an arcade game, using Deep Q-Learning model with a maximum score of 20
- Applied image pre-processing techniques on frames to generate appropriate input for the model
- Trained a model using Deep Q-Learning for 500,000 episodes to compute optimal Q values for actions

Generative Adversarial Networks – *ANIME-GAN*

- Developed a generator model using TensorFlow to generate fake anime faces
- Trained a discriminator model using TensorFlow to classify fake and real anime images
- Reported the performance of generator and discriminator using Minimax loss function

CAPTCHA Cracking - *captchacnn*

- Developed a single input multiple output Convolutional Neural Network Model using TensorFlow to recognize the letters in the CAPTCHA
- Generated 5000 CAPTCHA images of fixed length and size using python captcha library
- Assessed the performance of the model using 1000 test images with an average accuracy of 67%