# SUBHAM SARKAR

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#### **EDUCATION**

Haldia Institute of Technology(BTech-CSE): CGPA: 8.73/10 Aug 2014 - Jun 2018
 BSF Sr. Secondary Residential School(CBSE): Percentage: 89.80% Apr 2012 - Jun 2014
 Good Shepherd School, Bagdogra(ICSE): Percentage: 85.14% Mar 2011 - Mar 2012

#### **PROFILE**

Result focused **ex-Software Developer** with experience in developing robust code for high volume businesses and devising solution for challenging tasks.

Currently working as a **Data Scientist** and applying cutting edge ML technologies to solve real world problems and converting data to business achievements.

I am also a blogger and I write blogs on Machine Learning on **Medium**(https://medium.com/@kingsubham27) Also checkout my **portfolio**:( https://subhamio.github.io/SubhamSarkar-PortfolioWebsite/)

**LinkedIn**: https://www.linkedin.com/in/subham-sarkar-4224aa147/

## **EXPERIENCE**

# <u>Data Scientist, Amantya Technologies ,Gurgaon</u> PROJECT 1: AUTOML :

Oct 2020-Present

- Worked on developing entire AutoML pipeline framework using Python, PySpark.
- Testing: Flask WebAPIs', REST APIs', AWS-Chalice, Postman
- Deployment : AWS SageMaker, AWS-EC2 instance.

#### **PROJECT 2: Driver Score Prediction:**

- Calculating Driver Score using domain knowledge(formula) for the trips taken and using it to train model and predicting the scores(Multi Class Classification) for test data and inferences.
- **Testing**: Flask WebAPIs', REST APIs', Postman
- Deployment: Postgre SQL(Database), AWS-EC2 instance, AWS EMR Cluster Notebooks.

## <u>Developer, Cognizant Technology Solutions ,Kolkata</u>

July 2018-Oct 2020

- Experience in developing, testing, optimising and productionise fully automated marketing campaigns in
  Adobe Campaign using Javascript and SOAP UI.
- Certified in Adobe Campaign Classic Expert, Adobe Campaign Classic Architect.

# Machine Learning Engineer Intern, AITS, Remote

July 2019-Sept 2019

- Contributed to an open source project 'DeepC' which is an alternative to Tensorflow but for low form factor devices like microcontrollers(eg. Raspberry Pi, Arduino etc.)
- Paper published(IRISS,IIT Gandhinagar): <a href="https://www.linkedin.com/posts/subham-sarkar-4224aa147\_deep-neural-network-operatorsactivation-activity-6574367122120630272-s1Xi">https://www.linkedin.com/posts/subham-sarkar-4224aa147\_deep-neural-network-operatorsactivation-activity-6574367122120630272-s1Xi</a>
- Demo: <a href="https://www.youtube.com/watch?v=oUnobdCJwmE">https://www.youtube.com/watch?v=oUnobdCJwmE</a>

#### **PROJECTS AND POC**

• Image Captioning using Attention Mechanism (Deep Learning, Flask, HTML, VGG-16, LSTM, Python)

**Caption generation** is a challenging artificial intelligence problem where a textual description must be generated for a given photograph using Encoder-Decoder models and Attention mechanism.

- **Medium**: https://medium.com/@kingsubham27/image-captioning-using-attention-mechanism-f3d7fc96eb0e
- **Github**: <a href="https://github.com/SubhamIO/Image-Captioning-using-Attention-Mechanism-Local-Attention-and-Global-Attention-attenti
- Netflix Movie Recommendation System (Machine Learning, Matrix Factorisation, Python)

**Netflix** provided a lot of anonymous rating data, and a prediction accuracy bar that is 10% better than what Cinematch can do on the same training data set. [Collaborative Filtering Based Recommendation]

- **Github**: https://github.com/SubhamIO/Netflix-Movie-Recommendation-System
- <u>Stock Price Prediction using Deep Learning</u>(Deep Learning, Web Scraping, LSTM, Beautiful Soup, Python)

Predicting next n days prices using previous m days records.

- Github: <a href="https://github.com/SubhamIO/Stock-Price-Prediction-using-LSTM">https://github.com/SubhamIO/Stock-Price-Prediction-using-LSTM</a>
- Amazon apparel Recommendation System (Machine Learning, CNN, Pairwise Euclidean Distances, Python)

To recommend similar apparel products/items in e-commerce.[Content Based Recommendation]

• **Github**: https://github.com/SubhamIO/Amazon-s-Apparel-Recommendation-System

#### **SKILLS AND COMPETENCIES**

- Programming Languages: Python, Java, C, Javascript
- Areas of Interest: Machine Learning, Deep Learning, NLP, Computer Vision
- Tools/Libraries: Tensorflow, Keras, PySpark, Pandas, NumPy, Matplotlib, Seaborn, Tableau(Basic)
- Databases: MySQL, Oracle 11g, SQLite3, MongoDB
- Frameworks and Deployments: Flask WebAPI, AWS SageMaker, AWS Chalice, REST API, Docker, Postman, Heroku

#### **TUTORIALS AND DEPLOYMENTS BY ME**

- Approaching any NLP Problem: <a href="https://github.com/SubhamIO/Approach-any-NLP-problem">https://github.com/SubhamIO/Approach-any-NLP-problem</a>
- **PySpark in Action :** https://github.com/SubhamIO/PySpark-in-action
- **PYCARET in Action :** https://github.com/SubhamIO/PYCARET-in-action
- IPL Score Prediction(Heroku): https://ipl-1stinnings-score-predictor.herokuapp.com/
- IPL Score Prediction(AWS-EC2): http://ec2-3-17-208-207.us-east-2.compute.amazonaws.com:8080
- Diabetes Prediction(Heroku): <a href="https://diabetes-specialist.herokuapp.com/">https://diabetes-specialist.herokuapp.com/</a>

## **BLOGS**

- Image Captioning using Attention mechanism: <a href="https://medium.com/@kingsubham27/image-captioning-using-attention-mechanism-f3d7fc96eb0e">https://medium.com/@kingsubham27/image-captioning-using-attention-mechanism-f3d7fc96eb0e</a>
- Build,Train,Deploy ML models using AWS Sagemaker: <a href="https://medium.com/@kingsubham27/build-train-deploy-machine-learning-models-using-aws-sagemaker-4ad682acf1cd">https://medium.com/@kingsubham27/build-train-deploy-machine-learning-models-using-aws-sagemaker-4ad682acf1cd</a>

- Build and Deploy ML models using Flask and AWS-EC2: <a href="https://medium.com/analytics-vidhya/build-and-deploy-an-machine-learning-model-using-aws-and-apis-1d22eadb2b83">https://medium.com/analytics-vidhya/build-and-deploy-an-machine-learning-model-using-aws-and-apis-1d22eadb2b83</a>
- Calibration techniques in Machine Learning: <a href="https://medium.com/@kingsubham27/calibration-techniques-and-its-importance-in-machine-learning-71bec997b661">https://medium.com/@kingsubham27/calibration-techniques-and-its-importance-in-machine-learning-71bec997b661</a>
- Automatic Face Recognition: https://medium.com/ai-techsystems/auto-face-recognition-e8ee177fd04f