Subham Sarkar

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EDUCATION

Haldia Institute of Technology **August 2014 - June2018**
Bachelor of Technology, Computer Science and Technology **CGPA 8.73**

BSF Sr. Secondary Residential School(CBSE) **April 2012 - June2014**
Higher Secondary, Bio-Science **Percentage : 89.80 %**

Good Shepherd School, Bagdogra (ICSE) **March 2011- March 2012**
Percentage : 85.14 %

PROFESSIONAL SUMMARY

- Self motivated and smart working machine learning engineer passionate about cutting edge technologies and solving real world problems . Eager to **convert data to business achievements .**
- Proven ability to implement research papers and proficient in Applied Machine Learning skills in multiple domains such as **Computer Vision , Natural Language Processing, Recommender Systems** etc.
- I am a result focused software developer with experience in developing robust code for high-volume businesses. Interested in devising solutions for challenging tasks, learning and applying new technologies and tools. An enthusiastic team player with a can-do attitude and a strong user focus.

- 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/)

SKILLS AND COMPETENCIES

- **Programming Languages:** Python, Java, C , Javascript
- **Areas of Interest :** Machine Learning, Deep Learning, NLP, Computer Vision,Image Processing, Data Analysis
- **Tools/Libraries** : Tensorflow, Keras, Pandas, Numpy, SciPy, Seaborn, Matplotlib, Tableau , Adobe Campaign Classic
- **Databases** : MySQL, Oracle11g , SQLite3
- **Frameworks and Deployment** : Flask , AWS , Heroku, Dockers, Postman, SOAP UI

BUSINESS EXPERIENCE

Programmer Analyst - Cognizant Technology Solutions, Kolkata, India **July 2018 - Present**

- Experience in developing and testing fully automated marketing campaigns in **Adobe Campaign** using Javascript and SOAP calls
- Experience in optimising the campaigns .
- Experience in developing data export and import workflows in Adobe Campaign.
- Designing Data Schema, Input Forms, Navigation Hierarchies, WebApps etc. in Adobe Campaign.
- Defining typology(business) rules to execute unwanted or duplicate target audience.
- Finally, deployment in Production.
- **Blogs** : Machine Learning in Digital Marketing (**Churn Prediction**)

Machine Learning Engineer Intern , AI-Technology and Systems(AITS) **July 2019-Sep 2019**

- Contributed to an open source project "DNNCompiler" which is an alternative to Tensorflow but for low form-factor devices(micro-controllers) like Raspberry Pi etc.
- Every small smart device has a micro controller fitted into it. We are trying to bring the power of Deep Learning to the micro-controllers using the "DNNCompiler".
- **Paper published(DNN Operators)** : https://www.linkedin.com/posts/subham-sarkar-4224aa147_deep-neural-network-operatorsactivation-activity-6574367122120630272-s1Xi/
- Here is a small video to demonstrate how to use DeepC Compiler: https://www.youtube.com/watch?v=oUnob-dCJwmE

PROJECTS

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

- **Caption generation** is a challenging artificial intelligence problem where a textual description must be generated for a given photograph
- Extension of classic **Encoder-Decoder** models and usage of **Attention Mechanism**.
- API'fied the setup using Flask.
- **Medium** : https://medium.com/@kingsubham27/image-captioning-using-attention-mechanism-f3d7fc96eb0e
- **Github**: https://github.com/SubhamIO/Image-Captioning-using-Attention-Mechanism-Local-Attention-and-Global-Attention-

Stock Market Prediction using LSTM *(Deep Learning, Web Scraping, HTML,LSTM , Python,Beautiful Soup,Quandl)*

- Predicting **NIFTY 50** index movement for 7 days period.
- **LSTM** layers are used in eras to predict NIFTY 50 index movement for 7 days.
- **Medium** : https://medium.com/@kingsubham27/stock-market-prediction-using-deep-learning-b71ae6fea740
- **Github**: https://github.com/SubhamIO/Stock-Market-Prediction-using-LSTM

Netflix Movie Recommendation System *(Deep Learning, Machine Learning , Python,SVD,SVD++)*

- **Netflix** provided a lot of anonymous rating data, and a prediction accuracy bar that is 10% better than what Cine-match can do on the same training data set.
- Accuracy is a measurement of how closely predicted ratings of movies match subsequent actual ratings.
- **Techniques Used** : Surprise Library for Recommendation System,SVD,SVD++ etc.
- **Github**: https://github.com/SubhamIO/Netflix-Movie-Recommendation-System

On the Plague Trail ML Challenge*(Machine Learning, Random Forest, XGBoost, MultiOutputRegressor, Python)*

- To develop a machine learning algorithm for predicting the total number of people infected by 7 different patho-gens.
- This is a **Multi-Output Regression** Problem where we need to predict 7 output columns.
- Significance of this study is to study the causes of plague and ways to minimise it using Machine Learning .
- **LeaderBoard Score achieved : 88.19** and **HackerEarth Rank achieved : 69**
- **Medium :** https://medium.com/@kingsubham27/hacker-earth-challenge-on-the-plague-trail-a7794e22f458
- **Github**: https://github.com/SubhamIO/HackerEarth-Challenge-On-the-Plague-Trail

Predicting House Prices using classical Machine Learning and Deep Learning Techniques. *(Machine Learning, Deep Learning, Python)*

- With **79** explanatory variables describing (almost) every aspect of residential homes in Ames, Iowa, this competition challenges you to predict the final price of each home.
- This is a **Regression Problem** and the metric used is Root Mean Squared Error(**RMSE**)
- **Medium** : https://medium.com/analytics-vidhya/predicting-house-prices-using-classical-machine-learning-and-deep-learning-techniques-ad4e55945e2d
- **Github**: https://github.com/SubhamIO/House-Price-Prediction

BLOGS — > (Checkout : https://medium.com/@kingsubham27)

- Image Captioning using Attention Mechanism **Mar 2020**
- Stock Market Prediction using Deep Learning **Apr 2020**
- Calibration Techniques and it's importance in Machine Learning **Dec 2019**
- Build and Deploy ML Models using AWS and Flask **Nov 2019**
- On the Plague Trail ML Challenge **Nov 2019**
- Predicting House Prices using Classical ML and Depp Learning Techniques **Sep 2019**
- Automatic Face Recognition **July 2019**

CERTIFICATION — > (Checkout : https://www.linkedin.com/in/subham-sarkar-4224aa147/)

- Applied Ai Course , AAIC Tech Pvt Ltd **Feb 2019 - March 2020**
- Machine Learning Internship , AITS **July 2019 - July 2019**
- End to End Machine Learning with Tensorflow on GCP **Sep 2019**
- Machine Intelligence in EDA/CAD **July 2019**
- AutoML in Google Cloud Platform **Sep 2019**
- Adobe Certified Expert - Adobe Campaign Classic Developer **Sep 2019**

SOCIAL PROFILES

- **Github** : https://github.com/SubhamIO
- **LinkedIn** : https://www.linkedin.com/in/subham-sarkar-4224aa147
- **Website** : https://subhamio.github.io/SubhamSarkar-PortfolioWebsite/
- **Medium** : https://medium.com/@kingsubham27
- **Quora** : https://www.quora.com/profile/Subham-Sarkar-90