**Subham Sarkar**

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# EDUCATION

# Haldia Institute of Technology August 2014 - June2018

*Bachelor of Technology, Computer Science and Technology* C**GPA 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

I am an aspiring Data Scientist/ML Engineer. I am a result focused software developer currently working at Cognizant with experience in developing robust code for high-volume businesses. Presently , working on collaborating Machine Learning with Digital Marketing in deciding relevance with respect to offer integration , template content selection etc. 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.

Also during my internship as ML-Intern with AITS ,I worked closely with the team on their open-source project-“DNNCompiler” which is an alternative to Tensorflow but for low form-factor devices(micro-controllers) like Raspberry Pi etc. trying to bring the power of Deep Learning to the micro-controllers.

# SKILLS AND COMPETENCIES

**Technical:** Python, Machine Learning, Deep Learning, NLP, Computer Vision, Flask, Jinja Templating, SOAP UI, Big Data, Statistical Modelling, TensorFlow, Keras, Pandas, NumPy, Seaborn, Matplotlib, MySQL, Oracle 11g, Adobe Campaign, Java(J2EE, JSP, Servlets) , Microsoft Office Suite.

# BUSINESS EXPERIENCE

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

* Experience in developing and testing fully automated 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”.
* Here is a small video to demonstrate how to use DeepC Compiler: <https://www.youtube.com/watch?v=oUnobdCJwmE>

# PROJECTS

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

* C**aption 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->

**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 pathogens.
* 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

* **Image Captioning using Attention Mechanism:** https://medium.com/@kingsubham27/image-captioning-using-attention-mechanism-f3d7fc96eb0e
* **Calibration Techniques and it’s importance in Machine Learning :** <https://medium.com/@kingsubham27/calibration-techniques-and-its-importance-in-machine-learning-71bec997b661>
* **Automatic Face Recognition:** https://medium.com/ai-techsystems/auto-face-recognition- e8ee177fd04f
* **Build and Deploy ML Models using AWS and Flask** :https://medium.com/analytics-vidhya/build-and-deploy-an- machine-learning-model-using-aws-and-apis-1d22eadb2b83
* **On the Plague Trail ML Challenge:** https://medium.com/@kingsubham27/hacker-earth-challenge-on-the-plague-trail-a7794e22f458
* **Predicting House Prices using Classical ML and Depp Learning Techniques** :<https://medium.com/analytics-vidhya/predicting-house-prices-using-classical-machine-learning-and-deep-learning-techniques-ad4e55945e2d>

# CERTIFICATION

* **End to End Machine Learning with Tensorflow on GCP** : https://www.coursera.org/account/accomplishments/certific ate/NZPQCRANJKS6
* **Machine Intelligence in EDA/CAD** :https://www.udemy.com/certificate/UC- QBCK8ZFY/?utm\_campaign=email&utm\_source=sendgrid.com &utm\_medium=email
* **AutoML in Google Cloud Platform:** https://google.qwiklabs.com/public\_profiles/4d35fdd 1-018c-4d74-827a-01499c588a61
* **Adobe Certified Expert - Adobe Campaign Classic Developer** : https://www.youracclaim.com/badges/3fa21260-1109-4b74- baf1-ecdb9e08da3e/linked\_in\_profile

# SOCIAL PROFILES

* **Github** : https:// github.com/SubhamIO
* **LinkedIn** : https://www.linkedin.com/in/subham-sarkar-4224aa147
* **Website** : https://bit.ly/2UmQbOh
* **Medium** : https://medium.com/@kingsubham27
* **Quora** : https://www.quora.com/profile/Subham-Sarkar-90