10th June 2019

Atmadeep Banerjee

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LINKS

Github:
https://github.com/Atom-101

LinkedIn:
www.linkedin.com/in/atmadeep-banerjee-a12539149

COURSEWORK

- Computer Programming
- Object Oriented Programming
- Logic in Computer Science
- Data Structures and Algorithms
- Database Management Systems

ONLINE COURSES

- Machine Learning (Prof. Andrew Ng's course audited through Coursera)
- Deeplearning.ai Specialization (audited through Coursera)
- Convolutional Neural Networks for Visual Recognition (CS 231n Stanford University, Spring 2017)
- Practical Reinforcement Learning (audited through Coursera)

SKILLS

PROGRAMMING
Python • Java • C • C# • Prolog

ML FRAMEWORKS AND LIBRARIES
Tensorflow • Keras • Numpy • Pandas • OpenCV • Scikit-Learn • Unity3D ML Agents

SOFTWARES
• Unity3D

EDUCATION

BIRLA INSTITUTE OF TECHNOLOGY AND SCIENCE, PILANI
B.E. in Computer Science with Minor in Data Science (In progress)
August 2017 - Present | Pilani, India

- Cum. GPA: 8.60 / 10

CALCUTTA BOYS' SCHOOL
March 2004 - April 2017 | Kolkata, India

- XII, Senior Secondary
  Indian School Certificate (ISC) Examination 2017 | 95.75%
- X, Secondary
  Indian Certificate of Secondary Education (ICSE) Examination 2015 | 96.4%

EXPERIENCE

PIXXEL | AI Team Campus Lead
May 2018 - Present

- Pixxel is a remote-sensing startup building a constellation of nanosatellites to obtain real-time satellite imagery and using AI models to analyse the data.
- Worked with multispectral data for crop yield prediction.
- Currently working on models for segmenting buildings and roads from three channel satellite imagery.

Website: https://pixxel.co.in

TITANIC APP | Machine Learning Intern
May 2018 – June 2018

- Trained a ResNet-50 classifier written in Tensorflow using transfer learning, to detect offensive images.
- Wrote the prediction module to run inference on unseen images.

Website: www.titanicapp.co

RESEARCH EXPERIENCE

STUDY PROJECT | Road Sign Detection using a CNN
August 2018 - November 2018 | Advisor: Dr. Kamlesh Tiwari

- Worked on a project sponsored by MapMyIndia, for detecting and classifying various Indian road signs in their private dataset.
- Studied various region based and single-shot object detection algorithms.
- Trained a network based on YOLO v3 algorithm.

ACCOMPLISHMENTS

2016

- Kishore Vaigyanik Protsahan Yojana (KVPY) Fellow

2018

- Was among the top 14 teams across India to qualify for the final round of Philips Data Science Hackathon at Philips Innovation Campus, Bangalore, India

PROJECTS

- Modular CNN library written in Numpy

  A library to build Convolutional Neural Networks and train them on image datasets. Focused on simplicity, shows how various layers of a neural network work. Written completely in Python and Numpy. Python performance issues dealt using Numba.

  https://github.com/Atom-101/NumPyML

- Sentiment Analysis using a Convolutional Neural Network

  Stream tweets or news articles in real-time, depending upon search term given by user. Read streamed text corpuses using a CNN model and word2vec embeddings, and calculate mean sentiment on a scale of 0 to 1.

  https://github.com/Atom-101/SentimentAnalysis

- Generating Pokemon images using a GAN

  Scrape pokemon images from the internet through DuckDuckGo image search. Generate new Pokemon images using a Wasserstein GAN trained on the dataset.

  https://github.com/Atom-101/PokeGAN