Arijit Mukherjee

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EDUCATION

IIT BOMBAY
M.Tech in Computer Science
July 2019 | Mumbai, India
Natural Language Processing
CPI: 9.27

BPPIMT, WBUT
B.Tech in Computer Science
June 2016 | Kolkata, India
DGPA: 8.03

COURSEWORK

GRADUATE
Algorithms and Complexity
Design of Computing Systems
Foundation of Machine Learning
Advanced Machine Learning
Digital Image Processing
Computer Vision
Organization of Web Information
Reinforcement Learning
End to End Innovation

UNDERGRADUATE
Data structures & Programming
Theory of Computation
Operating Systems
Artificial Intelligence
Database Management Systems
Computer Networks

SKILLS

PROGRAMMING
Python • Javascript • Node.js • C • Java •
C++ • CSS • PHP • Matlab • LATEX•
Android • MySQL • MongoDB

TOOLS & LIBRARIES
PyTorch • Tensorflow • Scikit-Learn •
Pandas • NumPy • matplotlib • OpenCV

HOBBIES
Internet Gaming • Watching Movies •
Cricket

LANGUAGES
Bengali • English • Hindi

EXPERIENCE

COGNIZANT Programmer Analyst Trainee
Oct 2016 - May 2017 | Bangalore, IN
- Full stack developer wrote and reviewed Node.js and JavaScript code bases.
- Built proof of concept applications using IBM Watson APIs and open source technologies covering the AI dimensions of NLP, speech and vision.

RESEARCH

MASTER PROJECT Question Generation & Question Answering
Guided by Prof. Preethi Jyothi & Prof. Pushpak Bhattacharyya
- Used cross-lingual training methods to leverage already existing data in English to train automatic question generation system on Hindi and Chinese.
- Trained cross-lingual question generation system jointly in low resource primary and high resource secondary language which outperformed SOTA.

BACHELOR PROJECT Hand Gesture Recognition System
Guided by Prof. Suprabhat Maity
- Built an affordable device for human computer interaction using hand gestures using RaspberryPi2 and standard webcam with infrared illuminaters.
- Detected and recognized hand gestures using SVM with HoG features.

PROJECTS

QNA BOT Conversational Question Answering Chat-bot
- Built a web application **Flask** which can deploy conversational chat-bots to answer customer queries. Fined-tuned **BERT** on **PyTorch** with **CoQA** data-set. Achieved **F1 Score 76.7** on **CoQA** leader-board.

LABEL-IT Labeling Amazon Satellite Image Chips
- Built an attention based **CNN RNN** architecture with pre-trained **VGG16** on PyTorch, achieved **F2 score 90.25**

CGAME Multiplayer TicTacToe Game built on C++
- Developed and tested a multiplayer web application, implemented the web and web-socket server from scratch using **C++** with **UNIX Sockets**.

CAP2IMAGE Generate Image from captions
- Trained conditional **DCGAN, WGAN, GAN-CLS** to generate 64x64 images from text captions from **Caltech-UCSD Birds** data-set

ACHIEVEMENT

2016	Top 20/1446	WalmartLabs Hack Fest
2016	Top 24/406	HackerRank Machine Learning Codesprint
2016	1st	B.Tech Project of 2015-2016 Computer Science Dept.
2017	99.5 percentile	GATE 2017 (All India Level Graduate Entrance Exam)
2018	1st	TCTD Symposium Poster Presentation IIT Bombay