

Afroz Ahamad

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EDUCATION

Birla Institute of Technology & Science, Pilani

B.E. Computer Science & Eng.(Hons.)
Expected May 2019 | Hyderabad, India
Cum. GPA 8.159/10

SR Public Sr. Secondary School

Grad. May 2015 | Kota, India
CBSE - Class 12th, 92.8%

St. Xavier's Inter College

Grad. May 2013 | Naugarh, India
ICSE - Class 10th, 95.3%

SKILLS

Programming

C • C++ • JavaScript • Python
Scikit-learn • PyTorch • Tensorflow

Tools and Web Technologies

Git • Flask • React • Redux
GitHub|Travis CI • IPythonNB
REST APIs • HTML • CSS

Relevant Coursework

- Machine Learning
- Data Mining
- Information Retrieval
- Artificial Intelligence
- Data Structures and Algorithms
- Computer Networks
- Operating Systems
- Probability and Statistics
- Linear Algebra and Complex Variables

ACHIEVEMENTS

Google HashCode 2019 (team)
• Globally 1705/6671 • 98/957 in India
Goldman Sachs CodeSprint 2018
1st/730 in Machine Learning Challenge
Microsoft Code.Fun.Do 2018
1st runner up, BITS Hyderabad
ACM ICPC 2016
• India Rank 466 • 8/66 in college
BITS Pilani Merit-cum-Need
Scholarship Recipient for all semesters
National: NTSE Scholar, out of 1000

ACTIVITIES

Mozilla Campus Representative
Programming and Computing Club,
Open Source Society, BPHC
ACM-BPHC Chapter, Secretary

+ Titles are clickable links

RESEARCH ARTICLES

Skip-Thought Generative Adversarial Networks

NAACL 2019 SRW

Used Skip-Thought sentence embeddings with DCGAN to produce new sentences with similar context as those from training corpus. Compared training and loss improvements with Wasserstein GAN and gradient penalty against BiLSTM models.

WORK EXPERIENCE

Research Intern | Microsoft Research

Jan 2019 - Present

Project CodeTalk - Improving Programming Accessibility Bangalore, India

- Working on Project CodeTalk with Suresh Parthasarthy and Gopal Srinivasa.

Summer Analyst | Goldman Sachs

May 2018 - July 2018

Risk Engineering Division Bangalore, India

- Built a high performance system for handling huge volumes of trade data flow.
- Used internal programming languages for backend services exposing REST APIs.
- Developed a React-Redux based frontend for faster loading with reduced API calls.

Google Summer of Code 2018 | Mentor

Apr 2018 - Aug 2018

The Open Event Project | FOSSASIA

Based in Singapore

- Mentoring students accepted into GSoC 2018 under the Open Event Project.
- Review student proposals; submit program essential evaluations to Google.

Google Summer of Code 2017 | Developer

May 2017 - Sep 2017

Open Event API Server | FOSSASIA

Based in Singapore

- Refactored Open Event project to decouple frontend and backend components.
- Developed JSON-API compliant service with REST endpoints for Event Server.
- Documented exposed endpoints with Apiary Blueprint providing interactive shell.
- Wrote tests integrated into build to validate docs against backend implementation.

Open Source Contributor

Sep 2016 - Jan 2017

Wikimedia Foundation • Mozilla

Hyderabad, India

- Improved deprecated function issues in mediawiki-core which runs Wikipedia.
- Fixed issues pertaining to broken links in Mozilla Thunderbird's Lightning Calendar.

PROJECTS

Event Detection using Temporal Analysis

Prof. NL Bhanu Murthy, '18

Prediction of events from streaming data using adjacency-matrix representations of social-network. Used Bidirectional Attention LSTM and CNNs on weighted word2vec embeddings of tweets' text to detect if an event has occurred.

Timeseries Prediction with SAX-DNN

Prof. Chittaranjan Hota, '18

Analysis and prediction of speed and vehicle count in traffic timeseries data with LSTM-Fully Convolutional Networks. Used Symbolic Aggregate Approximation to preprocess data into a symbolic representation for ingestion into neural networks.

Clustering with Anomaly Detection

Prof. Aruna Malapati, '18

Mined association rules using apriori algorithm and rule generation. Compared clustering performances on datasets using divisive and agglomerative approaches. Implemented Local Outlier Factor anomaly metric for Credit Card Fraud Detection.

Content Management System File Search

Prof. Aruna Malapati, '17

Implemented a file search engine for college Content Management System. Used tf-idf metric for document vectorization along with an implementation of PageRank. Hosted search engine API on Heroku which was used in an in-campus Android app.

Movie Recommender System

Prof. Aruna Malapati, '17

Implemented and compared the Singular Value Decomposition and CUR methods used in developing recommender systems on the basis of the errors using Root Mean Square Error, Precision on Top k% and Spearman Correlation.