SIRAJ SANDHU

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EDUCATION

St. John's High School
CBSE Class X 2014
Cumulative Grade Point Average: 10/10

Sri Guru Gobind Singh Sr. Secondary School
CBSE Class XII 2016
Aggregate Percentage: 91.8%

Indian Institute of Technology, Kanpur
B. Tech. Computer Science & Engineering
Cumulative Performance Index: 9.3/10

INTERNSHIPS

The Indian Economist
Analyst · Jan 2017
Content Strategy Program

PROJECTS

Competitive Machine Learning, Digit Recognition and Text Summarization
Jan 2017 to Apr 2017
Supervised by the Association of Computing Activities
- Studied and implemented common Machine Learning Algorithms and Techniques. Solved the following problems on Kaggle: Titanic: Machine Learning from Disaster and Bag of Words using Scikit-Learn.
- Performed Recognition of Handwritten Digits on MNIST dataset using feed-forward neural networks, achieving 96% accuracy
- Implemented RSS newsfeed summarizer using NLTK, Gensim (Word2Vec), Tf-Idf Algorithm and Networkx Package (Page Rank)

Technical Dialog Chatbot
May 2017 to Aug 2017
Supervised by Programming Club
- Implemented a retrieval-based, short conversation, closed domain chatbot using a Dual Encoder LSTM network and trained on the Ubuntu Dialog Corpus (UDC)
- Employed LSTM and word embeddings of prior context and responses to generate a prediction, applied the sigmoid function to obtain the required probability distribution of sampled responses. Trained using binary cross-entropy loss.
- Achieved 69% average recall score using recall@2 metric and 91% using recall@5.

ACHIEVEMENTS

National Council of Educational Research and Training · Awarded National Talent Search Scholarship
2012
Qualified State Talent Search Exam, Chandigarh and National Talent Search Exam (NTSE)

Indian Association of Physics Teachers · Qualified National Standard Examination in Junior Science (NSEJS)
2013
Ranked among the top 1% of candidates
Qualified for Indian National Junior Science Olympiad (INJSO)

Indian Institute of Science · Qualified for KVPY Fellowship
2014
Qualified National Aptitude Test and Interview Round, secured AIR 484

JEE Advanced
2016
Secured AIR 179 among 2 lac candidates

TECHNICAL SKILLS

PROGRAMMING: C/C++, Python, Octave
UTILITIES: Numpy, TensorFlow, Pandas, Git, LaTeX, MS Office
OPERATING SYSTEMS: Windows, Linux (Ubuntu)

RELEVANT COURSES

Multivariate Calculus

Linear Algebra

Ordinary Differential Equations

Introduction to Programming

Introduction to Economics

Discrete Mathematics
*ongoing

Abstract Algebra

Logic in Computer Science
*ongoing

Game Theory I
by Stanford University and University of British Columbia via Coursera

Machine Learning
by Stanford University via Coursera

Deep Learning
by Google via Udacity

POSITIONS OF RESPONSIBILITY

Counselling Service · Student Guide
Jul 2017 to Present

Public Relations Techkriti'18Senior Executive
Aug 2017 to Present

CO-CURRICULARS

Vox Populi · Core Group Member
Sep 2016 to Present
Contributed as a writer to the campus journalism body

Languages
- Native: Hindi, Punjabi
- Full professional proficiency: English
- Limited working proficiency: French, German

Oratory
Participated in Declamations, Parliamentary Debates and MUNs.

Quizzing
Bournvita Quiz nationals first runners-up