Sourav Kumar

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Education

2016–present	**B.Tech Hons in Computer Science and Engineering**, *International Institute of Information Technology(IIIT)*, Hyderabad, *CGPA - 7.61/10.*
2013–2015	**Senior Secondary, CBSE**, *Golden Earth Global School*, Sangrur, *Percentage - 91.8.*
2012–2013	**Secondary, CBSE**, *Sita Grammar School*, Malerkotla, *CGPA : 9.8/10.*

Work Experience

Research Project

Language Technologies Research Centre (LTRC), *under Prof. Dipti Misra Sharma, IIIT Hyderabad.*

April 2019–present	**A user study of neural interactive translation prediction**. Neural Interactive Translation Prediction involves an MT system presenting a translator with translation suggestions which they can accept or reject, actions the MT system then uses to present them with new, corrected suggestions. Analyzing results of an empirical study on translation productivity in ITP with an underlying NMT system and compare the NITP results with Post Editing (PE).
December 2018–present	**Neural Machine Translation**. Phrase Based Multilingual Machine Translation using a single Neural Network Model by introducing artifical token of target language in start using a shared wordpiece vo-cabulary.

Full Stack Developer

June 2019–Present	**Omikron Technologies**, *Inolve in Software publishing, consultancy and supply* , Worked on various platforms, chat bots and live AWS servers.
Aug 2017–Nov 2017	**Taxi1way Android App**, *Online Taxi Booking*, Android application which provides online Taxi booking facility for popular cities with payment secure gateway.

Machine Learning

May 2019–June 2019	**Mobizite**, *Innovative solutions for businesses*, Machine Learning projects build the Text Extractor(from Id cards) using Pre-Build Models. Further Extended this project to Bar-code Scanner for individual identification.

Freelance Work

July 2019–Present	**MyMegaMinds**, *Provide Online Education*, Worked on screen-recording with audio of the tutor giving lecture and then sending the video to server in chunks.
June 2019–July 2019	**Smarter Cam**, *AI Wifi Cameras*, Implemented the notification using IFTTT when human or motion is detected by camera. Integrated the Paypal secure payment gateway for the application..

Projects

Data Mining	Association Rule Mining using Apriori Algorithm for Indian State Assembly Election and Candidates Data (1962-Present) .
NER Detection for Code Mix Data	Experimented with different machine learning classification algorithms (Decision Tree, LSTM, CRF) with word, character and lexical features.**Python**.
Sentimental Analysis	Experimented on feature extraction method's. Then classification of twitter tweets by extracting feature vector using neural network algorithms. **Python**.
Tic-Tac-Toe AI Bot	AI Bot based on concepts of Heuristics, Iterative Deepening and Min-Max algorithm with Alpha-Beta Pruning in **Python**.
Automatic Speech Recognition	Complete single End-to-End Automatic speech recognition system for English using Recurrent Neural Networks in keras and Tensorflow. **Python**.
Proxy Server	A multi-threaded HTTP proxy server with caching, blacklisting functionality implemented via socket programming
C Shell	An interactive user defined shell in C similar to bash, including new commands and features like input-output redirection, piping and signal handling
Games	○ **Terminal Based(Python) :** Game based on Bomberman with terminal based UI without using PyGame and Curses library ○ **OpenGL 2D Game :** 2D game based on Pacman-killer implemented in C++ ○ **OpenGL 3D Game :** 3D game based on Legend of Zelda implemented in C++ using OpenGL 4.5

Technical Skills

Working Knowledge	Machine Learning, Shell ,HTML5, CSS, Python, C , C++(STL), SQL, PHP
Past Experience	Jquery, Flask, Javascript, OpenGL, Android studio, Google Collab, GPU's

Relevant Coursework

CS	Computer Programming, Data Structures, Algorithms, Operating System, Computer Networks, Graphics, NLP Applications, Artificial Intelligence, Statistical Methods of Artificial Intelligence, Optimization Methods, Data warehousing and Data mining, Computer Architecture,
Mathematics	Discrete Mathematics, Abstract Algebra, Vector Space, Formal Methods, Group Theory

Achievements

JEE	Scored 250/360 in JEE Mains and ranked 2000/1.5 lac in JEE Advanced

Position of Responsibility

2018	Conduted Intra-college Bhangra tournament
2018	Inter-college Bhangra team member
2017	Felicity-Buzz(College Fest) Web Team member