JITESH PABLA

Contact No: +1-480-930-2008 • Email: jpabla1@asu.edu • Website: jiteshpabla.github.io • LinkedIn: linkedin.com/in/jiteshpabla

EDUCATION

Master's of Science - Computer Science **Expected May 2021**
Arizona State University, Tempe, AZ GPA - / 4.0
Courses: NLP Methods for Biomedical Text Mining, Statistical Machine Learning, Introduction to Artificial Intelligence

Bachelor of Technology (with honour's) - Computer Science and Engineering **May 2019**
Jaypee Institute of Information Technology (JIIT), Noida, India CGPA: 8.1/10

WORK EXPERIENCE

Participant with LuaRocks -The Lua package manager, Google Summer of Code 2018 **June – August 2018**
- Refactored the core functionalities of LuaRocks commands for - listing, uninstalling and showing details of packages, searching and installing rocks from the web, opening documentation, linting the rockspec, selecting a rock-tree etc., to modularize them.
- Programmed a complete Application programming interface (API) to provide access to LuaRocks functionality using object-oriented design principles.
- Designed a responsive and interactive web-based GUI using HTML, CSS, Bulma and Vue.js to give access to the LuaRocks functionality. Interfaced the GUI with the LuaRocks-API in the backend using CGILua.

Intern, Python development, Internity Foundation and Rannlab Technologies Pvt. Ltd., Greater Noida **June – August 2017**
- Applied machine learning models like - K Nearest Neighbours (KNN), Support vector machines (SVMs), logistic regression etc. for classification on various datasets utilizing NumPy, Pandas and scikit-learn.
- Built a proof-of-concept chatbot based on Stanford's CS20 chatbot by implementing a seq2seq model using TensorFlow, trained on Cornell's movie dialogue corpus.

Intern, Data analysis, Team Computers Pvt. Ltd., Gurgaon **June – July 2017**
- Applied data preprocessing techniques, statistical and machine learning methods such as moving averages, linear regression, spectral clustering etc. on dummy datasets using "Alteryx" (a data science tool).
- Predicted prospective car customers using car sales and inquiry data (with millions of data points spanning across 1 year) using time series analysis as an individual project.

PROJECT EXPERIENCE

Text-to-face generation **August 2018 - May 2019**
- Investigated and summarized various methods for facial image generation using text description of a face.
- Collected a dataset of text descriptions of hundreds of images from LFW dataset and utilized word2vec to create text embeddings.
- Programmed a Keras implementation of StackGAN (a variation of Generative Adversarial Networks) and trained it to generate facial images using the collected dataset.

Crop yield prediction based on temperature and rainfall for India **September - November 2018**
- Predicted the temperature and rainfall for a set of Indian districts using Recurrent Neural Network (RNN) and it's variation Long short-term memory (LSTM) with mean absolute error of 22.14 mm for rain and 0.81 °C for temperature.
- Utilized the rainfall and temperature prediction to further predict the yield of various crops in Indian districts using different methods - Linear regression, Random Forests, KNN and a Feed-Forward Network; did a comparative analysis for all methods.
- Used Pandas, Numpy, scikit-learn, Keras and Matplotlib for implementation.

Developing a Secure Soldier Monitoring System using Internet of Things and Blockchain **January – May 2018**
- Built a compact health and location monitoring system for soldiers in a battlefield using Raspberry Pi, Arduino and sensors to capture body temperature, heart-rate and GPS coordinates, along with a panic button and LCD to display messages.
- Re-engineered a blockchain prototype in Python to store AES encrypted data being transmitted from the monitoring system via GSM in an immutable and trustworthy fashion.
- Accepted to be published in 2019 International Conference on Signal Processing and Communication.

TECHNICAL SKILLS

Languages: Proficient: Python, C++; Competent: SQL, C, Lua, PHP; Some knowledge: JavaScript, Java
Misc: Tools: Git, GitHub, Sublime Text, Anaconda; OS: Linux, Windows; Hardware: Arduino, Raspberry Pi

ACTIVITIES

Student mentor, 'Algorithms and Problem Solving lab' and 'Artificial intelligence lab' at JIIT, Noida **July 2018 - May 2019**
- Assisted professors with setting assignments, proctoring exams and solving student doubts.

Workshop teacher, Computational Methods for Medical Image Analysis **April 2019**
- Taught Image segmentation using Python to faculty and graduate students