SAURABH MATHUR

https://saurabhmathur96.github.io saurabhmathur96@gmail.com

EDUCATION

VIT University, Vellore 2014–present

- BTech student, School of Information Technology and Engineering
- CGPA: 8.97 / 10.0
- Expected Year of Graduation: 2018
- Relevant Coursework: Artificial Intelligence · Linear Algebra · Numerical Analysis · Theory of Computation · Database Systems · Operating Systems · Data Structures and Algorithms

PUBLICATIONS

- U. Chandrasekhar and Saurabh Mathur. *Decision making using fuzzy soft set inference system.* In Proceedings of the 3rd International Symposium on Big Data and Cloud Computing Challenges (ISBCC - 16'). Springer International Publishing, 2016.
- P. Karthik, M. Saurabh, and U. Chandrasekhar. *Classification of text documents using association rule mining with critical relative support based pruning.* In 2016 International Conference on Advances in Computing, Communications and Informatics (ICACCI), Sept 2016.

WORK EXPERIENCE

Microsoft, Bangalore May 2016–July 2016

- Summer Internship
- Worked on the problem of automating movie recommendations
- Developed a hybrid algorithm with performance comparable to top 20 of the Netflix Prize participants

graVITas Web Team, VIT April 2016–September 2016

- Developed web-portals to automate all the transactions at VIT University's annual technical festival
- The portals handled traffic from over 30,000 users

Riviera Events Team, VIT September 2016–February 2017

- Designed a system to streamline the management of events at VIT University's annual cultural carnival
- Lead a team to implement the designed system.

PROJECTS

Neural Chatbot 2017

- An implementation of the sequence to sequence chat-bot model as proposed in "A Neural Conversational Model".
- A research paper suggesting some modifications on the model is currently under review at Journal of Organizational and End User Computing (JOEUC)

Happy and you know it 2017

- A deep residual network that detects emotions from pictures of people's faces
- The network is 66.5% accurate; Human accuracy is 65 $\pm$ 5%.

Clickbait Detector 2017

- A deep neural network that detects clickbait headlines with 90% accuracy
- Powers a chrome extension that tags click-bait on Social Media.

Holmes Text Generator 2017

- A recurrent neural network that generates quotes character by character, in the style of Arthur Conan Doyle's Sherlock canon.
- Provides two sampling mechanisms - Greedy Search and Beam Search

Digit Classification 2016

- A comparison of image classification techniques on the standard handwritten digits benchmarking Modified National Institute of Standards and Technology (MNIST) database
- A web-based demonstration allows users to provide input in their handwriting
- Developed in python using the Tensorflow computation framework

Cat v/s Dog classifier 2016

- A neural network that classifies pictures of pets as pictures of cats and pictures of dogs
- Implemented by fine-tuning the final block of a pre-trained VGG16 network, provided by University of Oxford's Visual Geometry Group
- Allows a user to visualize the fine-tuned layer of the network

Machine Learning 2016

- Implementations of well known Machine Learning Algorithms in pure Python and Java

Web Crawler 2015

- A simple but powerful web crawler
- Leverages the multi-threading capabilities of the Java Virtual Machine along with the fast storage operations in MongoDB to crawl the web and build a graph of links

File Compressor 2015

- An object-oriented implementation of the Lempel Ziv Welch (LZW) universal lossless data compression algorithm in C++

COMPUTER PROGRAMMING SKILLS

- Advanced: Python · JavaScript · Node.js · MongoDB · R
- Intermediate: Java · C# · TypeScript · C · C++ · MATLAB · Bash · SQL · LaTeX
- Basic: Lisp · Prolog · Ruby · Lua · Scala