

Sudhindra Sajjalguddam

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Education

BITS-Pilani, K.K Birla Goa Campus

B.E (Hons) Computer Science, Engineering

CGPA: 7.55/10

Goa, India

2013–2017

FIITJEE

XII std, SSC Board

Percentage: 96.3%

Hyderabad, India

2013

Kendriya Vidyalaya

X std, CBSE Board

CGPA: 10.0/10.0

Hospet, India

2011

Work Experience

IceCream Labs

Summer Intern

Bangalore, India

May 2016–July 2016

- Worked on the Computer Vision and Deep Learning R&D Team.
- Built a Shelving system for Walmart and Grainger using a deep Convolutional Neural Network.

Landmark IT

Summer Intern

Hyderabad, India

May 2015–July 2015

- Worked on the Design and Development Team for Grabon.
- UI/UX Design for a US based startup Sellers Commerce.
- Built a web scraping app to look for potential customers.
- Was a part of the Market Analysis team to develop business strategies to increase customer reach.

Projects

Deep Learning | Stock predictions using RNNs

Guide: Dr. Jajati Keshari Sahoo, Department of Mathematics, BITS-Goa

- Currently working with Dr. J.K. Sahoo on a project to predict stock returns using Recurrent Neural Networks. We are currently in the research and planning phase of the project.

Deep Learning | Transfer Learning in CNNs

Guide: Mr. Kaustubh Kulkarni, Researcher at Icecreamlabs, PhD student at INRIA, Paris

- Worked with Kaustubh to build a Deep Neural Network inspired by the ILSVRC'14 GoogleNet. We modified the top four Inception layers to suit our dataset. We also implemented the concept of Transfer Learning in Deep Convolutional Neural Networks. The strategy was to not only replace and retrain the classifier on top of the ConvNet as we got new data, but to also fine-tune the weights of the pretrained network by continuing the backpropagation.

Machine Learning | Classification Performance of Neural Networks

Guide: Mr. Tirtharaj Dash, CS/IS Dept. BITS-Goa

- o Worked with Tirtharaj and Vishnu C.R study the effect of incomplete features on classification performance of Neural Networks. In reality it is not always possible to get a full set of features for some real life problems such as medical decision making, life science etc. In this project, we studied the effect of an incomplete or insufficient set of features on the performance of NN with regard to real world pattern classification problems.

Machine Learning | Semi-Supervised clustering of web pages in ELM feature space

Guide: Mr. Rajendra Roul, CS/IS Dept. BITS-Goa

- o Worked with Vishnu C.R, Rajat Agarwal and Pranav Rai to cluster the labeled and unlabeled data sets which were extracted from the ELM (Extreme Learning Machines) feature space using Semi-Supervised K-Means. The clusters will then be assigned a label using cluster assumption.

Machine Learning | Safety index of an area in a city based on tweets and news articles

Guide: Mr. Sheikh Aman Alam, Code Advocate at Twitter India

- o The project was aimed at creating an application to gauge the safety index of an area in a particular city. Tweets are streamed into the system using the Twitter streaming API and analysed using Machine Learning Concepts. It ranks tweets based on their accuracy and authenticity while also keeping in mind the recency of events.

Python Development | A web scraping app in Python

Guide: Mr. Satvik G., Marketing and Business Dev Head at Landmark IT

- o Developed a web scraping app in Python during my internship at Landmark IT. The app crawls through the web looking for potential customers or dealers who would benefit from the company's E-Commerce services.

Machine Learning | Identifying bots from human users on an online bidding site

Guide: Mrs. Aruna Govada, CS/IS Dept. BITS-Goa

- o A python program to identify bots and human users on an online bidding site. The program analyses bidding patterns and purchased data to classify the users into bots and humans. The program was built on PySpark.

Embedded Systems | Remote surveillance system with object tracking and motion detection

Guide: Prof. Neena Goveas, CS/IS Dept. BITS-Goa

- o Built a remote surveillance system using a RasPi which detects intrusion and also tracks the object once any motion is detected. It sends the video clip over Gmail alerting the user during any event.

Machine Learning | Duplicate document detection using Latent Semantic Indexing

Guide: Mr. Rajendra Roul, CS/IS Dept. BITS-Goa

- o Worked with Vishnu CR, Rajat Agarwal, Pranav Rai to combat the problem of Duplicate Document Detection using the Latent Semantic Approach. I developed the code for LSI.

Java app development | A Java web app for SPREE

Guide: Mr. T.S.R.K Prasad, CS/IS Dept. BITS-Goa

- o Built a java based web app which manages events, fixtures, scores and notifies participants during the campus sports fest SPREE.

Teaching/Professional Assistantship

Teaching Assistant of Object Oriented Programming (CSF213) course at BITS Pilani, Goa.

Teaching Assistant of Computer Programming (CSF111) course at BITS Pilani, Goa.

Technical Skills

Languages: C, C++, Python, Java, SQL, JS, HTML5, CSS3, Matlab, LaTeX, Verilog, Assembly.

Tools: Caffe Deep Learning Toolkit, Hadoop MapReduce, PySpark, Matlab, Proteus, VisualSim, Visual Paradigm, Wireshark.

Methods: Convolutional Neural Networks, LSTMs, Fisher Vectors, Artificial Neural Networks, SVMs, CVMs, Latent Semantic Indexing (LSI), Random Forests, Gradient Boosted Trees, ELM, Clustering (supervised, unsupervised and semi-supervised).

Libraries: Caffe, Scikit-Learn, Twitter API (Streaming and REST), few Google APIs (Maps, OAuth 2.0, Gmail), SparkML, NLTK (Natural Language Toolkit), Python ELM, CUDA.

Operating Systems: Linux, Windows

Achievements and Awards

- o Kishore Vaigyanik Protsaha Yojana (KVPY) Fellow 2013.
- o CBSE Board Topper Award for securing a CGPA of 10/10.
- o Secured 2nd place in RHoK (Random Hacks of Kindness) Hackathon for developing an app to gauge the safety index of a city.

Communication Skills

- o English [Full Professional Proficiency]
- o Hindi, Kannada, Telugu [Native, Bilingual Proficiency]
- o French, Sanskrit [Limited Working Proficiency]

Positions of Responsibility

- o Nirmaan Organization Goa Chapter - PR Head (2015-2016).
- o SPREE '16 - Chief web and graphic designer for the annual Sports Fest of BITS-Pilani Goa (2015-2016).
- o Nirmaan Organization Goa Chapter - Project Leader for Teach Zari Project (2014-2015)

Interests and Extra Curricular Activities

- o Image Analysis of Social Media photos.
- o Textual Analysis of Social Media.
- o Kaggle Competitions.
- o Worked with several startups as a freelance web and graphic designer.
- o Represented the North Karnataka cluster in the state level badminton tournament. Our cluster secured the first place in the league games.
- o Tennis, Badminton, Cricket, Quizzing, Aviation.