

## S. Adithya

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### ACADEMIC DETAILS

Program	Discipline	University	Country	Year	CGPA
B.Tech	Computer Science and Engineering	Vellore Institute of Technology	India	2014-tilldate	8.66

### FIELDS OF INTEREST

- Machine Learning , Deep Learning , Artificial Intelligence , Reinforcement Learning and Computer Vision

### Technical Skills

- C/C++ , JAVA , Oracle , MySQL , JavaScript , PHP , MATLAB , Visual C++ , Android , Python , Python-Libraies : OpenCV,scikit-learn,keras,PyTorch.

### WORK EXPERIENCE

- Research Intern on Topological Data Science at University of Liverpool (September 2017 - present , remote)  
(Guide :Dr. Vitaliy Kurlin)
- Data Science Intern at Wingify (June 2017 - July 2017)
  - Worked on the developing features to allow the pushcrew (product of wingify for sending push notifications) customers to find personalize the push notification.
  - Used machine learning algorithms like MiniBatchKMeans , Affinity Propagation , Silhouette Analysis , Latent Dirichlet Allocation.
  - also developed models specific to customers.
- Data Science Intern at Myraa Technologies (December 2016 - January 2017)
  - Developed a API which acts as an OCR to convert the scanned financial statements into structured json separating the heading , and the account information.
  - This API development involved development of VGG net in keras, It also involved computer vision techniques like iterative dilation, distance transform and hierarchy of contour elimination.
- Basic and Advanced Java Training - Internship Program at Suven Consultants (June 2016 - July 2016)
  - This Program involved in depth training in Java Application Development which included Data Structures , Java Applet Development , OS Level operations , working with Databases.
- Web Development Training - Internship Program at Suven Consultants (December 2015 - January 2016)
  - This Program involved in depth training in WEB Application Development which included HTML 5, CSS 3, PHP, Oracle, JavaScript.
  - The Internship task involved in developing an e-commerce website prototype which can imported and directly used to create a website.
- Android App Development Training - Internship Program at Suven Consultants (June 2015 - July 2015)
  - This Program involved in depth training in Android Application Development and during the Internship I worked on developing an Offline Voting Application.

### RESEARCH PAPERS

- **Enhanced Scalar Invariant Transformation**  
(Guide: Prof. M. SIVAGAMI , VIT University , July 16' - Dec 16')

- After working on the project for 6 months during the research project we found a unique problem in the SIFT algorithm. The problem was that SIFT algorithm fails in case of low contrast images.
- During the research project we were experimenting several contrast enhancement and developed a improved version of Sobel Algorithm for improving the contrast enhancement. This work was presented in an international conference and also the paper got selected in springer journal.
- **Improved Speeded Up Robust Features.**  
(June 2017 - July 2017)
  - Worked on the project for 2 months , during the development of the research project I have worked on the developing region proposal the with minimal region proposal.
- **Brain Tumour Segmentation and Classification** (Project)  
(Guide : M.SIVAGAMI ,VIT University, Dec'16 - Feb'17)
  - Worked on Biologically inspired optimization algorithm for improved segmentation and classifying the brain MRI scans images.
  - Worked on this project for 3 months and paper has been in reviewing stage for Inderscience journal.
- **Modeling Large Scale Complex Cyber Physical Control Systems** (Research,completed)  
(Guide:Dr.R.Sakkaravarthi,Moving to University of Montreal , July'16 - Oct'16)

## PROJECTS

- **Deep Learning for Computer Vision**
  - Implementing Alex Net,VGG Net,OverFeat Network,Network in Network,Google Net,Res Net,Squeeze Net,Auto Encoder,Convolutional Auto Encoder,Variational Auto Encoder,Fully Convolutional Network in keras.
  - Implementing Deep Convolutional Adversarial Network in Pytorch.
- **Deep Learning for Natural Language Processing**
  - Predicting the next character in PyTorch.
  - Continuous Bag of word model in PyTorch.
  - Skip gram with negative sampling in PyTorch.
  - Sentimental Analysis in PyTorch.
  - Sequence2Sequence Language Translation in PyTorch.
  - Neural Attention Model in PyTorch.
  - Recursive Neural Network medium post (on going)
- **Machine Learning**
  - Shape Recognition using Perceptron.
  - Empirical Analysis on the Face Recognition on Pre-processing and Classification.
  - Stock Prediction using Hidden Markov Model.
  - solving recruitment problem using Support Vector Regression.

## Certifications And Courses

- **Machine Learning** (Coursrera,Stanford University,Andrew Y ng, July'16 -September'16 )
- **Convolutional Neural Networks for Visual Recognition** (Stanford University,Andrej Karpaty, Mar'17 - May'17 )
- **Natural Language Processing with Deep Learning (ongoing)** (Stanford University,Richard soher, June'17 - July'17 )
- **Reinforcement Learning (ongoing)** (University college London,David Silver,July'17 - August'17 )
- **Android Certified Programmer**  
(Organization: Suven Consultants and Technologies Pvt.Ltd. , June'15 -July'15)
  - Project : OFFLINE voting application
- **Web technologist**  
(Organization: Suven Consultants and Technologies Pvt.Ltd. , Dec'15 -Jan'16 )
  - Project:E-commerce Website Prototype

## INTEREST AND HOBBIES

- Playing Chess(was selected for state level competition and played Under - 13 national championship)
- Playing violin(Obtained 4th prize in Solo performance 3rd prize in Duet and 2nd Prize in Group performance in National Harmony Festival sponsored by UNESCO )