

Chris Andrew

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EDUCATION

MS by Research in Computer Science (CGPA - 9.0) International Institute of Information Technology, Hyderabad	August 2018 - Now
Bachelor's Degree in Computer Science & Engineering(Honours) (CGPA - 9.37) Indian Institute of Information Technology, Sri City	August 2014 - May 2018
Higher Secondary Schooling Vikas Concept School, Hyderabad (CBSE - 94.4%)	June 2012 - April 2014

WORK EXPERIENCE

Mentor and Org Admin - Google Summer of Code Python Hydra/Hydra Ecosystems	May 2018 - Now
Teaching Assistant for C Programming Indian Institute of Information Technology, Sri City	August 2017 - December 2017
Google Summer of Code Intern Python Software Foundation	May 2017 - August 2017
Research Intern Indian Statistical Institute, Kolkata	May 2017 - July 2017
Teaching Assistant for Artificial Intelligence Indian Institute of Information Technology, Sri City	January 2017 - April 2017
Research Intern Indian Statistical Institute, Kolkata	December 2016 - January 2017
Teaching Assistant for Discrete Maths Indian Institute of Information Technology, Sri City	August 2016 - December 2016
Networking Admin Indian Institute of Information Technology, Sri City	August 2015 - April 2016
Networking Intern Rekall Software Pvt. Ltd., Hyderabad	May 2015 - July 2015

SKILL SET

Programming Languages:	C, C++, C#, Java, Python, Matlab, Bash
Operating Systems:	Linux(Ubuntu), Windows(10/Vista/XP)
Web Tech:	Django, Flask, Web2py, PHP, HTML, Javascript
Machine Learning Tools:	OpenCV(contributor), scikit, numpy, Weka, PyTorch, Keras
Other Tech:	Android, Ionic, Unity
Other Tools:	Microsoft Office, Adobe Photoshop/GIMP, Git

ACADEMIC ACHIEVEMENTS

Member of the Dean's list for 6 semesters during B.Tech.

Batch Topper for Computer Science two semesters in a row(B.Tech.):

- 4th Semester with an SGPA of 9.36
- 5th Semester with an SGPA of 10

Batch Topper for Computer Science(cumulative) with a CGPA of 9.3 (B.Tech)

Elected the Academic representative for my batch(B.Tech) [2016–2017 and 2017–2018]

RESEARCH AND HONOURS PROJECTS

Stroke Representations for Writer Identification.

An extension of the work done previously for Indic scripts, we aim at developing generalised representations that can be used for writer identification on various scripts. Tested on datasets of five different scripts.

Stroke Distribution for Writer Identification of Indic Scripts

Proposed a novel method of stroke extraction and clustering. Created an alphabet of strokes and used their distribution for identification in Telugu(97%) and Kannada(100%). Published, ACPR 2017.

Directional Filtering for Writer Identification in Telugu:

Collected a dataset of 150 writers in Telugu script. Proposed new directional filter based features to generate junction distribution histograms. We were able to achieve 99% accuracy on our dataset. Published, ICDAR 2017.

Sentiment Analysis for Code Mixed Languages:

Performed Sentiment Analysis on Code Mixed Languages on a corpus of 20k Hindi-English tweets collected from twitter. We were able to achieve an accuracy of 74% using three sentiments which is the current state of the art in this field. Published, AAAI 2018.

DEVELOPMENT PROJECTS

Image Deblurring using Directional Filters(CVPR 2013)- Implemented an image deblurring algorithm from a paper published in CVPR and successfully deblurred images as part of a course project. (<https://github.com/chrizandr/vision-project>) [PyTorch, Optimisation]

Sketch Based Image Retrieval - A search engine that is able to retrieve relevant and appropriate images when a sketch image is given as a query to the system. The retrieved images may be sketches or colored/digital images. (<https://github.com/chrizandr/sbir>) [Python, Scikit]

Daisy Books and Tacotron 2 - Built a state of the art Text-to-Speech system using Google's Tacotron 2 Architecture. Used the system to automatically create Daisy Audiobooks to aid the visually impaired. [Python, PyTorch, Flask, Django]

COOLPy - A Translator that convert programs written in the Stanford COOL Programming Language to Python using Syntax Directed Trees for object mapping. [Python]

Hydrus - A smart server and client designed to demo the W3C Hydra Draft (part of GSOC 2017). (<https://github.com/HTTP-APIs/hydrus>). [Flask, Linked data, JSON-LD, REST APIs, PostgreSQL]

Critique - A web based cloud and mobile application to collect and analyse feedback using visualisation and NLP. (https://github.com/chrizandr/ITS_feedback). [Django, PostgreSQL, Ionic, IBM Bluemix, D3.js, AWS]

Traffic Sign Recognition with Multi-Scale Convolutional Networks - A CNN designed to recognise 61 types of traffic signals in the BelgiumTS dataset. Done as part of Stanford's CS231n Independent Study Project. Achieved 95% accuracy during testing on 5000 images.

(https://github.com/chrizandr/DL_Exp/tree/master/CS231n/Traffic_Sign) [TinyDNN(Deep Learning Library), C++, OpenCV]