

SIDDHARTHA GAIROLA

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EDUCATION

International Institute of Information Technology, Hyderabad

Hyderabad, India

Dual Degree BTech and MS by Research in CSE

2014 - 2019

Overall GPA: 8.98 /10

St. Joseph's Academy

Dehradun, India

Senior Secondary, ISC; Average: 93.6%

2012 - 2013

Secondary, ICSE; Average: 95.28%

2010 - 2011

WORK EXPERIENCE

Adobe Inc.

June 2019 - present

Research Intern

- Working as a Research Intern in the **Media and Data Science Research Team** with Balaji K.
- Implemented a Deep Learning model in *Python, Pytorch* to perform **Few shot Guided Segmentation** on images.

IIIT Hyderabad

May 2016 - May 2019

Research Assistant

- Honours at Center for Visual Information and Technology.
- Worked with Prof. P.J. Narayanan in Computer Vision, Machine Learning and Deep Learning.

IIIT Hyderabad

August 2016 - May 2019

Teaching Assistant

- Teaching Assistant for the following courses - *Digital Logic and Processors, Artificial Intelligence, Digital Image Processing, Computer Vision and Graphics*.
- The duties involved taking regular tutorials, setting up questions for assignments and conducting evaluations.

Google Summer of Code

May 2017 - Aug 2017

Summer Internship

- Got accepted as a developer for Google Summer of Code Program 2017 for the organization Scilab.
- Implemented a *C/C++* wrapper for Matlab MEX-API on current API Scilab.

Google Summer of Code

May 2018 - Aug 2018

Summer Internship

- Got accepted as a developer for Google Summer of Code Program 2018 for a 2nd time, organization Scilab.
- Implemented a DEMO in *C/C++ and Scilab* as a working example for the MEX Library in Scilab.

PUBLICATIONS

V Kumar, D Khattar, **S Gairola**, Y Kumar Lal, V Varma (2018), "Identifying Clickbait: A Multi-Strategy Approach Using Neural Networks", **The 41st International ACM SIGIR Conference on Research & Development in Information Retrieval**, Pages 1225-1228.

S Rawat, **S Gairola**, R Shah, PJ Narayanan (2018), "Find Me a Sky: A Data-Driven Method for Color-Consistent Sky Search and Replacement", **International Conference on Multimedia Modeling**, Pages 216-228.

S Gairola, R Shah, PJ Narayanan (2019), "Unsupervised Image Style Embeddings for Retrieval and Recognition Tasks", **Winter Conference on Applications of Computer Vision (WACV '20)**. (Submitted; this work is currently under review)

ACADEMIC ACHIEVEMENTS

Awarded the Dean's List Award for 6 semesters straight for being in top 10% of the class in Monsoon 2015, Monsoon 2016, Monsoon 2017, Spring 2016, Spring 2017 & Spring 2018.

Was a member of the teams **Pendulum** and **GOAT** which qualified for the **ACM ICPC Asia Amritapuri Onsite Regionals** in 2015 and 2016 respectively.

All India Rank 2262 in JEE Advanced 2014 (Among 150,000 students who appeared for the exam).

All India Rank 3856 in JEE Mains 2014 (Among 1.2 million students who appeared for the exam).

TECHNICAL SKILLS

Working Knowledge	GNU/Linux, Bash, C/C++(STL), Python, Matlab, Octave, OpenCV
Software & Tools	HTML, CSS, JS, LaTeX, Excel
Deep Learning Frameworks	PyTorch, TensorFlow, Keras, Caffe
Past Experience	Java, OpenGL, WebGL, Django, Web2py

PROJECTS

Hostel Portal: Developed a hostel management portal using python, Web2py framework. *Spring 2015*

Linux C-Shell: A linux like terminal implemented using *C* language using different concepts like fork, signals, exec, piping. *Monsoon 2015*

P2P File Sharing: Developed an application layer file transfer protocol with support for TCP. It included features such as file upload, file download and indexed searching. (Computer Networks course) *Spring 2016*

AI Bot: Designed an automated agent bot to play the a modified version of Tic-Tac-Toe game. Using a minimax algorithm and alpha-beta pruning. *Spring 2016*

2D Game: A 2-dimensional shooting game developed using *OpenGL C++*. *Spring 2016*

3D Game: A 3-dimensional game developed using *OpenGL C++*(GLFW library). *Spring 2016*

High Dynamic Range Images: HDR imaging - generating images with a greater range of luminance levels than which can be achieved by taking only a single photograph with a fixed exposure. Using tone mapping, high-boost filtering and bilateral filtering for improvements. *Monsoon 2016*

Wiki-Search Engine: Implementation of an efficient and scalable search engine on Wikipedia dump in *Python*. Retrieve top relevant documents based on input query. Handled field as well as phrase queries. Documents were re-ranked based on tf-idf measure. For fast retrieval used threading and multi-level indexing. *Monsoon 2017*

PROGRAMMING AND OPEN-SOURCE

Programming: Take part actively in competitive programming contests.

Codechef (handle: sidgairo18)

Codeforces (handle: sidgairo18)

Open-Source: Contribute to open source actively. Have made contributions to open source organizations like **Scilab, LibreOffice and CCEXtractor**. (**Github profile** : sidgairo18)

ADVANCED COURSES

Core Courses

Computer Programming
Data Structures
Algorithms
Operating Systems
Database Systems
Artificial Intelligence
Machine Learning
Advanced Computer Networks
Information Retrieval & Extraction

Other Courses

Linear Algebra
Discrete Mathematics
Complexity and Advanced Algorithms
Computer System & Organization
Digital Image Processing
Computer Vision
Information Security
Systems Network Security
Natural Language Applications