# Chirag C Dasannacharya

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## **EDUCATION**

# Birla Institute of Technology and Science, Pilani

Rajasthan, India

Bachelor of Engineering in Computer Science, Minor in Physics

Ongoing - Aug 2018 - May 2022

CGPA (as of 5th semester) - Major - 9.54/10; Minor - 10/10

Bangalore, India

National Public School, Indiranagar CBSE 12th Board Exam

Score - 96.6% 2018

CBSE 10th Board Exam

Score-10.0/10

2016

#### Experience

#### Undergraduate Research Intern

May 2020 – July 2020

Bhaskaracharya National Institute for Space Applications and Geo-informatics (BISAG-N)

Gandhinagar, India

- Completed an analysis of urban heat islands in Bangalore and Ludhiana
- Developed an open-source python plugin for the QGIS geo-informatics software that estimates Land Surface Temperature (LST) from Landsat images, using numpy, GDAL, pyQgis, pyQT and more
- Developed a tool to provide statistical metrics on temperature-related data in an area, using LST estimated from the plugin

# PROJECTS

# Blaze | Programming Languages, C

June 2020 - Present

- Designed grammar for a programming language from scratch
- Wrote a scanner and a parser
- Writing an interpreter for the language, in C
- Implemented functions and namespaces

## Graph Isomorphism | Graph Theory

August 2020 - Present

- Studied and presented papers on random graph isomorphism
- Implementing papers to evaluate performance and explore improvements
- Modifying algorithms to increase reliability

## NR-GANs | Machine Learning, Python

September 2020 – November 2020

- Did a literature review on noise-robust methods of image generation
- Studied and presented the paper on Noise Robust Generative Adversarial Networks (NR-GANs) by Takuhiro Kaneko and Tatsuya Harada
- Trained the model and evaluated performance
- Added image visualizer to observe performance of partially trained models
- Observed performance of model on non-standard noise distributions

#### **GFS** simulation | File Systems, C

October 2020

- Simulated Google File System (GFS) using processes communicating through message queues
- Ran metadata server, chunk servers and clients independently
- Implemented shell interface on chunk servers

# **QGIS Plugin** | Software Development, Python

May 2020 - July 2020

- Implemented an algorithm to calculate Land Surface Temperature (LST) from thermal and infrared images
- Designed a cross platform GUI for the implementation
- Integrated implementation and GUI with QGIS as a plugin
- Project done with the objective of analysing urban heat islands, as an intern at BISAG-N

# Competitions

# International Linguistics Olympiad 2017 - Bronze Medal Winner

August 2017

Won a bronze medal representing India at the 15th International Linguistics Olympiad held at Dublin, Ireland

#### International Linguistics Olympiad 2018 - Participant

July 2018

Represented India at the 16th International Linquistics Olympiad held at Prague, Czechia

# SCHOLARSHIPS

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Institute Merit Scholarship Awarded to top 3% of students	Mar 2020
Competitive Exams	
Joint Entrance Exam (JEE) - Advanced 2018 Rank - 1400 out of more than 150,000 candidates	May 2018
Joint Entrance Exam (JEE) - Mains 2018 Rank - 775 out of more than 1,000,000 candidates	April 2018
TECHNICAL SKILLS	
Programming Languages: Python, C, Java, Verilog HDL Libraries: NumPy, Matplotlib, QT, pygame	

# Extra-Curriculars

# ACM Student Chapter - Member

September 2018 - Present

Major Activities - organised Hour of Code session at local school, set recruitment question paper