

Ritu Raj Singh

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EDUCATION

- **Indian Institute of Technology(IIT), BHU Varanasi** CPI: 8.53
Bachelor and Master of Technology in Mathematics and Computing (Honours) *2017-2022*

INTERNSHIP

- **ISRO Research: Short Term Project** Semantic Segmentation
PI:Ritu Raj Singh, Chhavi Jain *July21-Present*
 - Building an Analysing and Processing method for raw data.
 - Building the segmentation method from processed data and trying to overcome the problems.
- **Citrix Internship** Geofence Recommendation System
Supervisor:Katerina Kalou, Nikolaos Anastasopoulos *Summer 21*
 - Developed and deployed a geofencing recommendation system from the logon session data of users from different products of citrix.
 - Used the concept of Unsupervised learning to create the recommendation system and got exposure of working with Big Data(millions of rows) in Azure Databricks.
- **NumFocus: SymPy** NumFocus Project
Supervisor:Ondrej Certik, Aaron Meurer *June19 - September19*
 - Developed a module to solve the general type of HYPERGEOMETRIC, BESSELS ordinary differential equations(ODEs)
 - Refactor the ordinary differential equation(ODE) module to make it more useful and got exposure of development and CI/CD: **ODE Module**

PROJECTS

- **Retinal Blood Vessels Segmentation** B.tech Project
Supervisor: Dr Sunil Kumar, IIT (BHU), Varanasi *Jan 2020 - December 2020*
 - Build a machine learning classification model using Locality-constrained Linear Coding with MaxPoling.
- **Diabetic Retinopathy Detection** Exploratory Project, **Report**
Supervisor: Dr Sunil Kumar, IIT (BHU), Varanasi *August 2018 - November 2018*
 - Build a deep learning classification model using attention model similar to Natural Language Processing(NLP) attentation model.

ACHIEVEMENTS

- Stood 1749 position and 423(In India) position in Google Code Jam round 1.
- Google Kick Start best rank is 1101.
- Facebook Hacker Cup best rank is 1487 and best in India is 173.
- Codeforces best rating is 1657.

BADGE AND CERTIFICATES

- Kubernetes on IBM Cloud Begineer Level Certificate.
- LinkedIn Skill Assessment Badge of Python, Git, Machine Learning.

PROGRAMMING SKILLS

- **Languages:** Python, C++, C, Java Basic
- **Technologies:** Basic Docker, Basic Kubernetes, Python Data Science Stack, Hive, PySpark, Azure Databricks, TF