

# Rishabh Pandey

BIOINFORMATICS · DATA SCIENCE · WEB DEVELOPER

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## Abstract

I am a Northeastern Husky, and I have an inclination towards machine learning and deep learning for visualization and analysis and I also love software development and I aim to land a job as a Data Scientist or a software developer/engineer.

## Education

### Northeastern University

Boston, MA, USA

MS IN BIOINFORMATICS

December-24

- Concentration in Data Science and Data Analytics

### Ramaiah University of Applied Sciences

Bangalore, India

BSc (HONS) BIOTECHNOLOGY

August-21

- 8.9/10 CGPA

## Work Experience

### IISc, Bangalore

Bangalore, India

FULL STACK WEB DEVELOPER - INTERN: RUBY ON RAILS

May 2021 - June 2021

- Worked as a Full-stack web developer in Department of Computational and Data Science, Indian Institute of Science, Under Dr. Chirag Jain in ATGC lab using Ruby on Rails framework.
- Created a relational database from scratch for the website and hosted it with all the features that was required.

## Projects

### Computational Drug Discovery with CNN using QSAR modelling

Bangalore, India

FULL STACK DEVELOPER: PYTHON

May 2021 - Jul 2021

- Using ChEMBL database developed web app that predicts bio-activity (pIC50) of the target molecule by CNN using QSAR modelling of protein Acetylcholinesterase
- Canonical smiles notations was used to calculate Lipinski descriptors, used in the interpretation of drug likeness of the compounds based on their pharmacokinetic profile that is absorption, distribution, metabolism, and excretion
- [Github link for the project](#)

### CF-CAP (Computational Flu or COVID-19 Anticipator and Precrifer)

Raipur/Bangalore, India

DATA SCIENTIST AND FRONT-END DEVELOPER: PYTHON & JAVASCRIPT

Oct 2020 - April 2021

- CF-CAP provides first line of aid for the initial symptoms of COVID-19; Using X-ray of lungs to find traces of coronavirus in the lungs using CNN model by designing a web-app with a VG16 model to predict COVID.
- CF-CAP had an on-paper accuracy of 90% that was trained with over 16,000 image samples with epoch cycles of 50 using VGG16 architecture.
- Serving its purpose, this application got highlighted in the all India page of a top tier national newspaper, "Patrika." [Link to the article](#)
- [Github link for the project](#)

## Skills

### Programming :

Python, JavaScript, Node.js, React.js, MERN Stack, C, Git, MATLAB, (S)CSS, Flask, HTML5

### Databases :

MySQL, PostgreSQL, Microsoft SQL Server, MongoDB, Firebase

### Bioinformatics Tools :

Python, R, Bash, Biopython, Linux, BLAST+, MEGA-X, Pandas, Numpy, Matplotlib

### ML/AI :

Keras, Tensorflow, Full-stack Model-Development, Scikit-learn, Pandas

### Interpersonal Skill :

Leadership with Critical thinking, Public speaking and Presentation, Problem solving skills, Event management

### Wet Lab Skills :

Biosafety cabinet (Level 2), Gel electrophoresis, PCR, MTT assay, Immunological Assays

Plant callus culture, Animal tissue culture, Microbiology plating techniques

## Seminar and Workshops

**Application of computational tools in drug discovery** At MSRUS in 2019