



# Rodhan Patke

Student  
Molecular Biotechnology



2000 April 17



The Discovery CHS,  
Borivali East, Mumbai, India



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Rodhanp

## Education

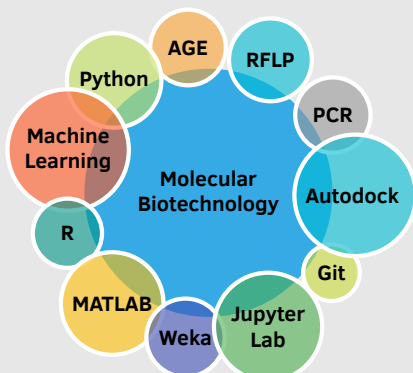
**MSc., Molecular Biotechnology**  
(Expected to begin in September 2021)  
University of Birmingham  
2021 - 2022 | United Kingdom

**BSc., Biotechnology**  
University of Mumbai  
2018 - 2021 | India

## Summary

An aspiring passionate biotechnologist, enthusiastic about learning new avenues in the field of Molecular Sciences and Computational Biology, with the sole aim to utilize my knowledge, skills, and abilities towards the betterment of humanity.

## Technical Skills



## Experience

**2018 and 2019 Student Intern at BAI JERBAI WADIA HOSPITAL FOR CHILDREN - BJWHC, Mumbai Maharashtra**  
Received hands-on experience in molecular biology laboratory techniques like PCR, Allele specific-PCR, RFLP, Agarose gel electrophoresis, and increased knowledge of bioinformatics tools for sequence retrieval and primer designing was gained in the fifteen day internships.

## Certifications

- **Certificate Course in Bioinformatics** *University of Mumbai*
- **Principles, Statistical and Computational Tools for Reproducible Data Science** *Harvard-Edx*
- **Certificate of Training in Molecular techniques in Genomics Hands On Workshop** *Bai Jerabai Wadia Hospital for Children, Mumbai, Maharashtra*
- **Demystifying the Brain** *IIT Madras-NPTEL*
- **Python for Everybody Specialization** *University of Michigan-Coursera*
- **Genetic Engineering using CRISPR Technology** *Kshitij, IIT Kharagpur*
- **Maharashtra State Certification in Information Technology** *Maharashtra Knowledge Corporation Limited (MKCL)*

## Achievements/Awards

- **Certificate of Merit** -*University of Mumbai*  
*Selected for Final Round of 15th Inter-Collegiate/Institute/Department Avis-hkar Research Convention: 2020-21 for a research proposal titled "Deve-lopment and Validation of Bioinformatics Online Software for Taxonomical Identification of Enterobacteriaceae Species Using Biochemical Examina-tions".*
- **1st place in intra-college science exhibition - Origin 2021** -*Thakur College of Science and Commerce*  
*Secured 1st place for project entitled "Morphological characterization of en-dophytic bacteria from Moringa Oleifera".*
- **3rd place in intra-college science exhibition - Origin 2020** -*Thakur College of Science and Commerce*  
*Secured 3rd place for project entitled "Online database of Bacterial Identifi-cation".*
- **Certificate of Participation in Avishkar Research Convention 2019-20** -*University of Mumbai*  
*Performed a wet-lab research project on "Isolation and characterization of endophytic bacteria from Moringa oleifera".*
- **2nd place in intra-college science exhibition - Origin 2018** -*Thakur College of Science and Commerce*  
*Secured 2nd place for science project on "CRISPR Technology".*
- **Certificate of Extension Work (D.L.L.E)** -*University of Mumbai*  
*Participated in Annual Extension activities related to career development.*

## Projects

- **Drug Discovery Pipelines**  
*Bioinformatics Project for generating pipelines for Drug Discovery using python and Jupyter Notebook.*
- **QSAR Model Building of Dopamine Active Transporter Inhibitors**  
*Dopamine Active Transporter Bioactivity Prediction Web App built in Python and Streamlit.*
- **Simulation of Covid-19 Testing Process**  
*Used R-Simmer package of R-language for Simulation of Covid-19 Testing Pro-cess.*



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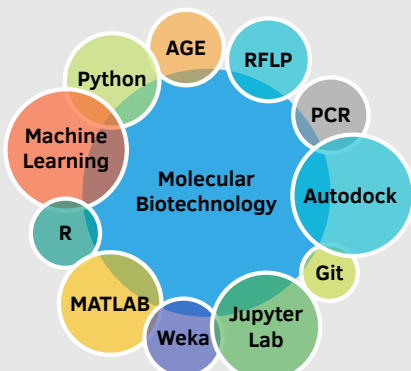
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## Technical Skills



### • Hierarchical Clustering using Euclidean Distance

Learned to build a python pipeline for Hierarchical Clustering using Euclidean Distance.

### • 3D SARS-CoV-19 Protein Visualization With Biopython

Used Biopython to build a pipeline for visualization of proteins.

### • Covid-19 Cases Prediction Model

Explored Facebook Prophet for building prediction models.

### • Life Expectancy Prediction Model using Linear Regression

Explored Python and Jupyter Notebook to build a Life Expectancy prediction model by linear regression using data from WHO.

### • Mycelium Growth model using Netlogo

Visualized the growth of Mycelium using Netlogo web.

### • Diabetes Prediction Model using Pyspark

Explored Pyspark's MLlib to build a model for predicting Diabetes.

### • R language Autodidacticism

Self-learning R by performing various Data Processing, Data Analysis, Machine Learning and Web Application building methods in R language using Rstudio.

### • Research project on Isolation and Characterisation of endophytic bacteria from moringa oleifera

Wet-lab research project performed in the second year of my Bachelors Degree.

### • Research project on Effect of sound on the growth of E.Coli

Wet-lab research project performed in the first year of my Bachelors Degree.

## Publications

### • Review Article on Methods for Extracting Genomic DNA from Whole Blood Samples.

IJSRD - International Journal for Scientific Research & Development, ISSN (Online):2321-0613

### • Analysis of HMG-CoA Reductase Protein in Poaceae Family and Animals Samples by using Bioinformatics Tools.

International Journal of Science And Research, ISSN: 2319-7064

### • Analysis of Neuronal Differentiation 1 (NEUROD1) Gene and Mutations in Subphylum Vertebrata by using Bioinformatics Tools.

International Journal of Science And Research, ISSN: 2319-7064

## Languages

### • English

Bilingual proficiency

### • Marathi

Native proficiency

### • Hindi

Native proficiency

### • German

A1 Level

## Other Skills/Interests

### GRAPHICS DESIGN

Adobe Photoshop  
CorelDraw  
Adobe Illustrator

### VIDEO EDITING

Adobe Primer Pro  
Adobe Audition  
Adobe After Effects

### HOBBIES

Chess  
Table Tennis  
Drama