

# BIKRAM MAJHI

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## EDUCATION & CERTIFICATIONS

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### Integrated BS-MS in Life Sciences

Indian Institute of Science Education and Research, Kolkata, India  
Department of Biological Sciences  
MS-Thesis Advisor: *Prof. Mohit Prasad*

July 2017 – May 2022

CGPA: 8.19/10.00

### Senior Secondary Education

B.J.B Junior College, Bhubaneswar, Odisha

July 2014 - May 2016

### Secondary Education

Hemasagar High School, Pakelkhol, Odisha

July 2011 - May 2014

## PAST RESEARCH EXPERIENCE

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### Research Project

**Indian Institute of Science Education and Research, Kolkata, India**

Prof. Mohit Prasad, Department of Biological Sciences

Project Title: *Investigating the role of Rpn3 in Drosophila Border Cell Migration using MARCM analysis*

May 2022-Dec 2022

### MS Thesis

**Indian Institute of Science Education and Research, Kolkata, India**

Prof. Mohit Prasad, Department of Biological Sciences

Project Title: *To investigate the Role of RPN3, a proteasomal subunit component, in Border Cell Migration using mutant analysis*

August 2021 – May 2022

### Academic Project

**Indian Institutes of Science Education and Research (IISER), Kolkata, India**

Prof. Rupak Datta, Department of Biological Sciences

Project Title: *Simulation of the cloning process of the gene to produce Aromatic L-Tyrosine Hydroxylase*

May 2020 – Jun 2020

### Academic Project

**Indian Institutes of Science Education and Research (IISER), Kolkata, India**

Dr. Bidisha Sinha, Associate Professor, Department of Biological Sciences

Project Title: *Image Analysis of E. coli growth in  $\beta$ -Mercaptoethanol*

Sept 2019 – Nov 2019

## MACHINE LEARNING PROJECTS

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### Deep Q-Learning - Lunar Lander

**Machine Learning Specilization**

Trained an agent to land a lunar lander safely on a landing pad on the surface of the moon

Feb 2023

### Deep Learning for Content-Based Filtering

**Machine Learning Specilization**

Implemented content-based filtering to build a recommender system for movies

Feb 2023

### Anomaly Detection

**Machine Learning Specilization**

Implemented the anomaly detection algorithm to detect failing servers on a network

Jan 2023

### Housing in Buenos Aires

Dr. Nicholas Cifuentes-Goodbody, **WorldQuant University, USA**

Created a machine learning model that predicts apartment prices in Buenos Aires, Argentina.

Nov 2022

**TECHNICAL SKILLS**

<b>Programming Languages</b>	Python, MATLAB, R
<b>Laboratory Skills</b>	Drosophila handling, Immunofluorescence, Cloning, Epifluorescence Microscopy
<b>Molecular Dynamics Tools</b>	Immunohistochemistry, Western Blotting, Bacterial Cultures, Transformation
<b>Other Softwares</b>	PyMol
	TensorFlow, Keras, LaTeX, Origin, Prism-GraphPad, ImageJ,

**ACHIEVEMENTS**

• GATE Biotechnology <b>2023</b>	<b>National Rank-2451</b>
• DBT-Junior Research Fellowship (DBT-JRF) <b>2022</b>	<b>Ranked under Category-II</b>
• CSIR UGC NET (JRF) <b>2021</b>	<b>National Rank- 217</b>
• Joint Entrance Examination (Main) <b>2017</b>	<b>National Rank-1265</b>
• Joint Entrance Examination Advance (IIT-JEE) <b>2017</b>	<b>National Rank-1186</b>

**RELEVANT TECHNICAL COURSES**

Mathematical Thinking in Computer Science	Biophysics	AI for Medical Diagnosis
Introduction to Graph Theory	Combinatorics & Probability	Bioinformatics
Advanced Learning Algorithms	Convolutional Neural Networks	Introduction to Graph Theory
Fundamentals of Reinforcement Learning	Differential Equations for Engineers	Biostatistics
Mathematics for Machine Learning	Neural Networks and Deep Learning	Matrix Algebra for Engineers
AI For Medical Treatment	Python Programming	Calculus

**ONLINE-COURSES**

"Introduction to Programming with MATLAB" by *Vanderbilt University* and offered through "Coursera"

"R Programming" by *Johns Hopkins University* and offered through "Coursera"

"Matrix Algebra for Engineers" by *The Hong Kong University of Science and Technology* and offered through "Coursera"

"Introduction to Genomic Technologies" by *Johns Hopkins University* and offered through "Coursera"

"Python for Genomic Data Science" by *Johns Hopkins University* and offered through "Coursera"

"AI For Everyone" by *DeepLearning.AI* and offered through "Coursera"

"Intro to Machine Learning" , through "Kaggle"

**BOOTCAMPS & WORKSHOPS**

• <b>Applied Data Science Lab</b> , offered by WorldQuant University, USA	Dec 2022 - Present
• <b>5 Weeks of Deep Learning</b> , AI Planet formerly DPhi	Dec 2022 - Jan 2023
• <b>5 Weeks of Data Science</b> , AI Planet formerly DPhi	Dec 2022 - Jan 2023
• <b>Prevention of Antibiotic Resistance in Environment (PARE) Course</b> under <b>Prof. Sharon Gusky</b> North-western Connecticut Community College, USA conducted by <b>ASM-IUSSTF</b>	Jan 2019

- **National Vijyoshi Science Camp**, IISER Kolkata Dec 2017  
Organised by IISc, KVPY, IISER Kolkata and DST-INSPIRE
- **Inspire Internship Programme for Young Talents**, KIIT University Bhubaneswar Aug 2015  
Organised by School of Biotechnology, KIIT University and Sponsored By DST-INSPIRE, India

## SEMINARS & CONFERENCE

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- Biomolecular Condensates— **Westlake-Science Joint online Symposium** 18 Jan 2023
- Indian Drosophila Research Meeting 13-17 Dec 2021  
Organized by Indian Institute of Science Education and Research Kolkata (IISER K) under the auspices of the **Indian Society for Drosophila Researchers**
- 3rd Indian C.elegans meeting 2022 — Indian worm meeting— India 27-30 Sept 2022  
Organized by **National Brain Research Center, Manesar** and Sree Chitra Tirunal Institute for Medical Sciences and Technology, Thiruvananthapuram, Kerala
- Young Neuroscience Investigator's Symposium 2022— **Neuroscience Ireland - ECRN** 27 Oct 2022
- A seminar on the topic "**The Guardian of the Genome: Regulation by p53**" under the course LS3202

## TEACHING EXPERIENCE

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- Selected as a Teaching Assistant of **Prof. Tushar Kanti Nandi** for the **Introduction to Economics**(HU3201) course of 3rd year undergraduate students at IISER Kolkata (Jan- May 2022).

## REFERENCES

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### Prof. Mohit Prasad

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Department of Biological Sciences  
IISER Kolkata, India  
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Email: mohitprasad@iiserkol.ac.in

### Dr. Dipjyoti Das

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Department of Biological Sciences  
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