

# Shreya Saha

Kolkata, West Bengal, India. [shreyasaha83@gmail.com](mailto:shreyasaha83@gmail.com), (+91)7797841999, <https://www.linkedin.com/in/shreya-saha-011095>

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## OBJECTIVES

I have completed M.Sc in Biotechnology from Pondicherry University in 2018 and B.Sc in Life Sciences from Presidency University, Kolkata in 2016. I am currently looking for a challenging and fulfilling job in Biotechnology industry. It would be great to work where I can utilize and apply my knowledge, skills which would help me as a fresh graduate to grow as well as contribute in the field.

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## CAREER POST M.SC

I passed out in 2018 then prepared for GRE and TOEFL. Got selected for an international PhD position in Taiwan (TIGP 2019), but could not join due to problems in my passport and my father's health. In 2019, I resolved the passport issues and prepared for all national level PhD entrance tests. 2020 and mid-2021 was lost due to pandemic. Meanwhile, I completed few online courses and workshop in 2021. In 2022, qualified for GATE 2022 and decided not to wait anymore for PhD and instead try to join Biotechnology industry which was always my goal after completing PhD.

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## EDUCATION

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|---------------------|--|
| Aug 2016 – May 2018 | Master of Science in Biotechnology<br>Pondicherry University, Pondicherry, India<br>Overall CGPA = 9.38/10 |
| Jul 2013 – Jul 2016 | Bachelor of Science in Life Sciences<br>Presidency University, Kolkata, India<br>Overall CGPA = 8.58/10    |

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## PROJECT EXPERIENCES

August 2017 - May 2018 Functional assays for evaluation of potential anti-biofilm activity of recombinant endo-1, 4-beta mannosidase of *Bacillus licheniformis* against MDR *Acinetobacter baumannii*

### Project Fellow

PI: Prof. Dr. Prashanth Kenchappa, Pondicherry University, India

**Skills:** Molecular cloning, overexpression and purification of protein, enzyme activity analysis via Zymogram, bacterial staining and detection, anti-biofilm assay. Microbial identification and bacterial culture methods.

May 2017 - July 2017 Effect of Apolipoprotein E deletion on Alfa to Beta myosin heavy chain shift in the mouse heart

### Summer Research Trainee

PI: Dr. Regalla Kumaraswamy, CSIR-CCMB, India

**Skills:** Preparation and maintenance of HEK293 and HeLa cell culture, mice handling, right ventricle dissection of apoe-/- mice (C57BL/6), isolation and screening of mRNAs and lncRNAs, cDNA synthesis, Western blot, q-RT PCR.

January 2016 - March 2016 Prevalence of pain and perceived exertion in tea pluckers of North Bengal

### Project Student

PIs: Prof. Dr. Prabir Kumar Mukhopadhyay and Prof. Dr. Aparna Mukhopadhyay, Presidency University, India

**Skills:** Anthropometric measurements, blood cell counts, socio-economic status, natality-mortality rate, food habits and nutritional assessments, pain measurements using numeric rating pain scale, statistical data analysis.

May 2015 - August 2015 Characterization of bacteria of Jaduguda uranium mines

### Summer Project Student

PI: Prof. Dr. Mausumi Sikdar, Presidency University, India

**Skills:** Bacterial culture methods, plasmid isolation, and antibiotic sensitivity tests.

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## SKILLS

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### Molecular Biology:

RNA, plasmid, and DNA extraction & isolation, cDNA synthesis, Isolation & screening of mRNAs & lncRNAs, Western Blotting, qRT-PCR, PCR, Molecular cloning, overexpression & purification of protein, Preparation of competent cells, Preparation & maintenance of the HEK293 & the HeLa cell cultures, Agarose gel electrophoresis, SDS-PAGE, NATIVE-PAGE, UV-Vis Spectrophotometry, Bacterial Staining and Identification, Anti-biofilm assays.

### Microscopy:

Immunofluorescence staining, Fluorescence microscopy-based aggregation study.

### Animal Handling:

Mice handling

### Computer Skills:

Microsoft Office tools, R programming basics, Bio-Python (basic & learning), Bio-Python (basic & learning), Data clustering algorithms, JAVA (basic), ImageJ, STRING analysis, GraphPad PRISM (basic & learning), Operating basic bioinformatic tools like biological databases, sequence analysis.

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## ACHIEVEMENTS

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- Qualified GATE Life Sciences 2022
- Secured Second Rank in M.Sc. (Biotechnology), Pondicherry University (2018).
- Awarded DBT scholarship 2016 to carry out M.Sc. in Biotechnology and received additional scholarship to carry out summer project work at CSIR-CCMB during MSc.
- Qualified in CEEB held by JNU, India (2016).

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## CONFERENCES & WORKSHOPS

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- Completed an online course named "Big Data, Genes and medicines" authorized by The State University of New York, offered through Coursera (2021).
- Completed the course - Prime Minister's initiative skill development program on theory and hands-on training in "High end equipment for clinical applications- Optical (Confocal) Microscopy" conducted by the CSIR-IICB research institute in India (2021).
- Participated in the National seminar on "Skill development in frontiers areas of biological sciences for nation building" conducted at Pondicherry University, India (2018).
- Presented the project entitled "Prevalence of pain and degree of perceived exertion amongst tea pluckers of North Bengal" at the West Bengal State Science and Technology Congress (2016).

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## LANGUAGES

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- English (Proficient), Bengali (Native), Hindi (Proficient), Japanese (Conversational).

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## INTERESTS & HOBBIES

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- Exploring, documenting, and cooking different cuisines, learning new languages, gardening.



# PONDICHERRY UNIVERSITY

(A Central University)

PUDUCHERRY - 605 014

## CONSOLIDATED GRADE REPORT

Sl. No. 30543

|                       |              |
|-----------------------|--------------|
| Name of the Candidate | Register No. |
| SHREYA SAHA           | 16303005     |

Programme & Specialisation : **M.Sc. (BIOTECHNOLOGY)**

| Sem. | Title of the Course                    | Course Code      | Credit | Marks | Grade | Point | Session |
|------|--|------------------|--------|-------|-------|-------|---------|
| I    | CELL BIOLOGY                           | BIOT411          | 3      | 72    | A     | 9     | Nov16   |
| I    | MICROBIOLOGY                           | BIOT413          | 3      | 82    | A+    | 10    | Nov16   |
| I    | BIOCHEMISTRY                           | BIOT414          | 3      | 77    | A+    | 10    | Nov16   |
| I    | TECHNIQUES IN BIOTECHNOLOGY            | BIOT415          | 3      | 81    | A+    | 10    | Nov16   |
| I    | CELL BIOLOGY LAB                       | BIOT461          | 1      | 90    | A+    | 10    | Nov16   |
| I    | MICROBIOLOGY LAB                       | BIOT463          | 1      | 88    | A+    | 10    | Nov16   |
| I    | BIOCHEMISTRY LAB                       | BIOT464          | 1      | 88    | A     | 9     | Nov16   |
| I    | TECHNIQUES IN BIOTECHNOLOGY LAB        | BIOT465          | 1      | 84    | A+    | 10    | Nov16   |
| I    | BIOPROCESS TECHNOLOGY                  | BIOT513          | 3      | 79    | A+    | 10    | Nov16   |
| I    | BIOPROCESS TECHNOLOGY LAB              | BIOT563          | 1      | 81    | A+    | 10    | Nov16   |
| II   | IMMUNOLOGY                             | BIOT412          | 3      | 80    | A+    | 10    | May17   |
| II   | MOLECULAR GENETICS                     | BIOT421          | 3      | 90    | A+    | 10    | May17   |
| II   | MOLECULAR PLANT BREEDING               | BIOT425          | 3      | 74    | A     | 9     | May17   |
| II   | STEM CELL BIOLOGY                      | BIOT426          | 3      | 76    | A     | 9     | May17   |
| II   | IMMUNOLOGY LAB                         | BIOT462          | 1      | 77    | A+    | 10    | May17   |
| II   | MOLECULAR GENETICS LAB                 | BIOT471          | 1      | 78    | A     | 9     | May17   |
| II   | MOLECULAR PLANT BREEDING LAB           | BIOT475          | 1      | 86    | A+    | 10    | May17   |
| II   | RADIATION BIOLOGY                      | BIOT521          | 3      | 83    | A+    | 10    | May17   |
| II   | ANIMAL BIOTECHNOLOGY                   | BIOT522          | 3      | 81    | A     | 9     | May17   |
| II   | RADIATION BIOLOGY LAB                  | BIOT575          | 1      | 82    | A+    | 10    | May17   |
| II   | ANIMAL BIOTECHNOLOGY LAB               | BIOT576          | 1      | 73    | A     | 9     | May17   |
| III  | INTRODUCTION TO BIOINFORMATICS         | BINF419          | 3      | 61    | A     | 9     | Nov17   |
| III  | LAB - BIOINFORMATICS DATABASES & TOOLS | BINF455          | 1      | 71    | A     | 9     | Nov17   |
| III  | RECOMBINANT DNA TECHNOLOGY             | BIOT511          | 3      | 86    | A     | 9     | Nov17   |
| III  | PLANT BIOTECHNOLOGY                    | BIOT512          | 3      | 64    | B+    | 7     | Nov17   |
| III  | MARINE BIOTECHNOLOGY                   | BIOT514          | 3      | 67    | A-    | 8     | Nov17   |
| III  | MEDICAL BIOTECHNOLOGY                  | BIOT523          | 3      | 92    | A+    | 10    | Nov17   |
| III  | RECOMBINANT DNA TECHNOLOGY LAB         | BIOT561          | 1      | 95    | A+    | 10    | Nov17   |
| III  | MARINE BIOTECHNOLOGY LAB               | BIOT564          | 1      | 70    | A-    | 8     | Nov17   |
| III  | MEDICAL BIOTECHNOLOGY LAB              | BIOT566          | 1      | 81    | A+    | 10    | Nov17   |
| III  | PROJECT                                | BIOT592          | 2      | 88    | A+    | 10    | Nov17   |
| IV   | PHARMACEUTICAL BIOTECHNOLOGY           | BIOT525          | 3      | 63    | A-    | 8     | May18   |
| IV   | CREDIT SEMINAR                         | BIOT591          | 1      | 92    | A+    | 10    | May18   |
| IV   | PROJECT                                | BIOT593          | 4      | 85    | A+    | 10    | May18   |
| ***  | ***                                    | END OF STATEMENT | ***    |       |       |       | ****    |

PONDICHERRY UNIVERSITY  
 Class awarded : I (First Class with Distinction)  
 PUDUCHERRY 23/5/2018  
 Seal :  
 MIC SECTION  
 ANY CORRECTION IS INVALID

Cumulative Grade Point Average : 9.38

ASSISTANT REGISTRAR (ACA-GENERAL)  
 PONDICHERRY UNIVERSITY  
 PUDUCHERRY - 605 014.

REGISTRAR





# PONDICHERRY UNIVERSITY

SL. No. 45175

KALAPET  
PUDUCHERRY - 605 014.

## PROVISIONAL CERTIFICATE

| CENTRE | REGISTER No. |
|--------|--------------|
| PU     | 16303005     |

FOLIO No.

PG18M0599

THIS IS TO CERTIFY THAT **SHREYA SAHA**  
HAS QUALIFIED FOR THE **DEGREE OF MASTER OF SCIENCE  
IN BIOTECHNOLOGY**  
HE/SHE HAVING PASSED THE ABOVE SAID DEGREE EXAMINATION  
HELD IN **MAY 2018** AND PLACED IN **FIRST CLASS WITH  
DISTINCTION**  
**WITH CUMULATIVE GRADE POINT AVERAGE OF 9.38 OUT OF 10.**  
THIS UNIVERSITY PLACES NO RESTRICTION ON THE STUDENT FROM MIGRATING TO OTHER UNIVERSITIES

OFFICE SEAL

DATE

16/07/2018



ESTABLISHED BY ACT OF  
PARLIAMENT 53 OF 1935

*P. Chinnus*  
Controller of Examinations

*[Signature]*  
ASSISTANT REGISTRAR (ACA-GENERAL)  
PONDICHERRY UNIVERSITY  
PUDUCHERRY - 605 014.



**PRESIDENCY UNIVERSITY**  
**KOLKATA**

# Presidency University

Hindoo College (1817-1855), Presidency College (1855-2010)  
86/1, College Street, Kolkata 700073, West Bengal, India  
website: [www.presiuniv.ac.in](http://www.presiuniv.ac.in)

## OFFICIAL TRANSCRIPT OF ACADEMIC RECORDS AS ON : 07/12/2018

Name of the Candidate : **SHREYA SAHA**  
Course of Study : **Bachelor of Science (Hons)**  
Subject : **Life Sciences**  
Medium of Instruction : **English**  
System of Grading : **7 Point Grading System in the Scale of 10. (See Overleaf for details).**

### Records of Examination

| REG. No.  | 13121822045 of 2013 - 14  | ROLL No. | 13121845 |
|---|---|----------|----------|
| First Semester  |   |          |          |
| PAPER   | SUBJECT   | CR       | GR       |
| A. MAJOR TH P 1   | Bios 0101 - Plant and Animal Diversity, Organic Evolution and Ecology | 4        | A        |
| B. MAJOR PR P 1   | Bios 0191 - Plant and Animal Diversity, Organic Evolution and Ecology | 6        | B        |
| C. Gen Ed 1   | CHEM0131 Organic Chemistry - I  | 4        | A+       |
| D. Gen Ed 2   | SOCL0131 : Why Study Society?   | 4        | C        |
| E. Gen Ed 3   | GEOL0131 : Earth, Atmosphere and Life : Early Days                    | 4        | B        |
| PASSED 1st Sem IN February 2016 ; SGPA (Major) : 7.40 SGPA Extra Departmental) : 7.33 |   |          |          |
| Second Semester   |   |          |          |
| PAPER   | SUBJECT   | CR       | GR       |
| A. MAJOR TH P 2   | Bios 0201 - Biophysical Principles, Biochemistry and Biostatistics    | 4        | A+       |
| B. MAJOR PR P 2   | BIOS0291 Biophysics and Biochemistry                                  | 6        | A++      |
| C. Gen Ed A   | SOCL0231 : Love   | 4        | B        |
| D. Gen Ed B   | CHEM0231 Inorganic Chemistry - 1                                      | 4        | A+       |
| E. Gen Ed C   | PHYGEOL0231 : Earth : The Living Planet                               | 4        | A+       |
| PASSED 2nd Sem IN June, 2014; SGPA (Major) : 9.60 SGPA Extra Departmental) : 8.33     |   |          |          |

| REG. No.  | 13121822045 of 2013 - 14   | ROLL No. | 13121845 |
|---|--|----------|----------|
| Third Semester  |  |          |          |
| PAPER   | SUBJECT  | CR       | GR       |
| A. MAJOR TH P 3   | Bios 0301 - Cell Biology, Molecular Biology and Genetics                             | 4        | D        |
| B. MAJOR TH P 4   | Bios 0302 - Microbiology, Biology of Diseases and Immunology                         | 4        | C        |
| C. MAJOR PR P 3   | Bios 0391 - Cell Biology, Molecular Biology, Genetics Microbiology and Immunology    | 6        | B        |
| D. Gen Ed A   | CHEM0331 Organic Chemistry 2   | 4        | D        |
| E. Gen Ed B   | GEOL0331 Mass Extinction /Apocalypse in Earth's History                              | 4        | B        |
| PASSED 3rd Sem IN JANUARY 2015; SGPA (Major) : 6.14 SGPA Extra Departmental) : 6.00 |  |          |          |
| Fourth Semester   |  |          |          |
| PAPER   | SUBJECT  | CR       | GR       |
| A. MAJOR TH P 5   | Bios 0401_3 - Digestion, Nutrition, Excretion and Thermal Homeostasis                | 4        | A+       |
| B. MAJOR TH P 6   | Bios 0402_2- Blood , Body Fluids, Hematology, Cardio-vascular System and Respiration | 4        | A+       |
| C. MAJOR PR P 4   | Bios 0491 - Practical Related to Theoretical Papers 5 and 6 of the Semester          | 6        | A+       |
| D. Gen Ed A   | CHEM0431 Inorganic Chemistry - 2   | 4        | B        |
| E. Gen Ed B   | GEOL0431 Man and Environment   | 4        | A        |
| PASSED 4th Sem IN JUNE 2015; SGPA (Major) : 9.00 SGPA Extra Departmental) : 7.50    |  |          |          |

| REG. No.  | 13121822045 of 2013 - 14   | ROLL No. | 13121845 |
|---|--|----------|----------|
| Fifth Semester  |  |          |          |
| PAPER   | SUBJECT  | CR       | GR       |
| A. MAJOR TH P 7   | Bios 0501_1 - Bioenergetics, Intermediary Metabolism                             | 4        | A        |
| B. MAJOR TH P 8   | Bios 0502_4 - Nervous System, Physiology of Nerve and Muscle, Sensory Physiology | 4        | A++      |
| C. MAJOR TH P 9   | Bios 0503_1 - Endocrinology, Neuroendocrinology and Human Reproduction           | 4        | A+       |
| D. MAJOR PR P 5   | BIOS0591_2 - Bioenergetics, Nerve-Muscle Physiology and Immunology               | 6        | A++      |
| E. MAJOR PR P 6   | BIOS0592_2 - Endocrinology and Grand Viva  | 6        | A+       |
| PASSED 5th Sem IN FEBRUARY 2016; SGPA (Major) : 9.25 SGPA Extra Departmental) : N/A |  |          |          |
| Sixth Semester  |  |          |          |
| PAPER   | SUBJECT  | CR       | GR       |
| A. MAJOR TH P 10  | Bios 0601 - Biostatistics and Bioinformatics                                     | 4        | A+       |
| B. MAJOR TH P 11  | Bios 0602_2 - Social Stress, Sports Physiology and Ergonomics                    | 4        | A++      |
| C. MAJOR TH P 12  | Bios 0603_1 - Pathophysiology of Common Diseases and Pharm. Drug Design          | 4        | A+       |
| D. MAJOR PR P 7   | BIOS0691 - Practical Based on Theory   | 6        | A++      |
| E. MAJOR PR P 8   | BIOS0692 - Practical Based on Theory   | 6        | A        |
| PASSED 6th Sem IN JUNE 2016; SGPA (Major) : 9.17 SGPA Extra Departmental) : N/A     |  |          |          |

CGPA (Major) = 8.58  
CGPA (Gen ED) = 7.40

*[Signature]*

Controller of Examinations

The 7th December, 2018

Checked by

*[Signature]*



\*GR - Grade

\*CR - Credit

$$SGPA_j = \frac{\sum_{i=1}^n m_i C_i}{\sum_{i=1}^n C_i}$$

Where n is the number of courses in the <sup>j</sup>th semester, m<sub>i</sub> denotes the numerical value of the grade obtained in the i<sup>th</sup> course of the semester. C<sub>i</sub> denotes the number of credit for the i<sup>th</sup> course of the semester.

Cumulative Grade Point Average (CPGA) for k semesters is given as :

$$CPGA_j = \frac{\sum_{j=1}^k (SGPA_j \times C_j)}{\sum_{j=1}^k C_j}$$

Where C<sub>j</sub> is the total number of credits in the j<sup>th</sup> semester.

#### CLASSIFICATION OF GRADES :

| MARKS OBTAIN       | GRADE | GRADE POINT |
|--------------------|-------|-------------|
| 90 and above       | A++   | 10          |
| 80 to 89           | A+    | 9           |
| 70 to 79           | A     | 8           |
| 60 to 69           | B     | 7           |
| 50 to 59           | C     | 6           |
| 40 to 49           | D     | 5           |
| <40 (unsuccessful) | E     | 0           |