Ms. OJASWI BISWAS

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# Professional Summary

A passionate and innovative professional with an M.Tech in Biotechnology and diverse global research experience. Proven ability to manage and interpret large datasets using statistical methods and programming. A passionate and innovative AWS Cloud Engineer with a strong background in designing, deploying, and managing scalable cloud solutions. Proven ability to optimize infrastructure, automate workflows, and enhance security using AWS services, DevOps practices, and Infrastructure as Code (IaC). Seeking to leverage my expertise to drive cloud transformation and deliver robust, cost-effective solutions in dynamic environments.

# Work experience

**Ioncure Pvt. Ltd., New Delhi, Internship (Sept 24- Present)**

* Analyzing microbiome bacteria and fungi interactions in relation to serotonin regulation and epilepsy, leveraging AWS cloud services for scalable data processing and storage.
* Conducting in-depth literature reviews and database exploration for relevant studies, utilizing AWS databases and analytics tools for efficient data management.
* Utilizing computational tools for data analytics, integrating DevOps practices for automation, scalability, and streamlined workflows in cloud environments.

# Academic Coaching and Counselling (Nov 12 - Present)

**Self-employed**

* Provided French language instruction to school-level students and specialized training for individuals preparing for DELF, TCF, and TEF exams, with a focus on language proficiency and immigration requirements.
* Provided mentorship and leadership to over 250 students, fostering academic growth and enhancing their overall performance through personalized guidance and structured learning strategies.

# WISE Corner Laboratories, Bangalore (May - Oct 2023)

**Internship**

* Developed expertise in bioinformatics by utilizing cloud-based AWS services for molecular docking, simulations in drug discovery, and CRISPR-Cas9 gene editing. Applied DevOps practices to automate workflows, optimize computational resources, and enhance scalability for research applications in cancer immunotherapy and mRNA vaccine design.

# Indian Institute of Technology, Indore (Oct - Dec 2022)

**Internship in Drug Discovery**

* Gained expertise in drug discovery and development principles, leveraging AWS cloud computing for molecular modeling, visualization, and computational analysis of protein structures. Applied DevOps methodologies to streamline workflows, automate simulations, and enhance scalability, ensuring efficient processing of complex biological datasets while addressing regulatory challenges in drug development.
* *Computer skills: Leveraged AWS cloud services and DevOps practices to utilize bioinformatics software for analyzing biological networks and molecular interactions, ensuring scalable, efficient, and automated data processing.*

# Max Planck Institute of Immunology and Epigenetics, Freiburg im Breisgau, Germany (Feb - Jul 2022) Master thesis Research Scholar

* *Data analysis:* Analyzed large-scale genomics data from CRISPR-Cas9 experiments on T cells using R and statistical methods, leveraging AWS cloud computing for scalable data processing and DevOps practices for workflow automation and optimization.
* *Deadline oriented*: completed the thesis research and project submission within a tight timeline of 4 months
* *Technical Skills:* Mastered CRISPR-Cas9 and molecular biology protocols, successfully editing genes in zebrafish while utilizing AWS cloud computing for data analysis and DevOps practices for automating bioinformatics workflows.

# University of Zurich, Institute of Experimental Immunology, Zurich, Switzerland (Sep - Nov 2021) ThinkSwiss Research Scholar: Asia Pacific

* ***Research Skills:***Investigated extracellular vesicles (EVs) in eukaryotic and prokaryotic cells using flow cytometry, leveraging AWS-based computational tools for scalable data analysis.
* ***Collaborative Skills:***Worked with a team of three researchers to analyze EV behavior, integrating cloud-based collaboration tools and DevOps methodologies for efficient data sharing and workflow automation.
* ***Data Analysis*:** Analyzed and interpreted data on GFP packaging in HEK293 cells using statistical methods, employing AWS cloud computing for large-scale data processing and visualization.

# CSIR-NEIST (Council of Industrial and Scientific Research, North-East Institute of Science and Technology), India

**National Summer Internship (Jun - Aug 2020)**

* *Critical analysis:* Researched, evaluated, reviewed, and refined existing literature on various red blood cell indices to differentiate sickle cell anemia, utilizing AWS cloud resources for data storage and analysis, and applying DevOps practices to automate and streamline the research process.
* *Scientific Writing:* Drafted a comprehensive review article on red blood cell indices, incorporating data-driven insights and leveraging cloud-based tools for data management and analysis. Applied DevOps practices to streamline the research and writing process, ensuring efficient collaboration and version control.

# KIIT School of Biotechnology,Bhubaneswar, India (May - Dec 2019) Summer Internship

* *Research Skills:* conducted experiments on *Drosophila melanogaster* to study the impact of thermal conditions on fecundity
* *Data analysis:* monitored and analyzed egg production over a 21 day period using statistics
* *Hands-on Laboratory skills*: gained experience in maintaining fly populations, transferring populations, isolating male and female flies for experimentation

# Indo Global Social Service (IGSSS), New Delhi, India (May-July 2018) Yes FoundationMedia for Social Change Fellow

* made a video for the succesfull digital fundraising campaign #HelpKalahandi and #Gift of Water, driving awareness and donations
* Created IGSSS weekly newsletters, mid-term review magazine to communicate key initiatives and updates

# Education

B.Tech-M.Tech (Dual Degree) in Biotechnology (2017 – 2022) School of Biotechnology, KIIT University, Odisha, India **(9.21/10) Achievements and funding**

* ThinkSwiss Research Scholar: Asia Pacific 2021, selected as one of the 5 students selected across India to pursue research internship in Switzerland, funded by the State Secretariat for Education, Research and Innovation (SERI) and supported by Swissnex in India.(**2021**).
* Khorana Scholar, among 50 students selected across India to pursue research internship in the USA, funded by Government of India's Department of Biotechnology and Indo-US Science and Technology Forum **(2020**).
* YES Foundation Media For Social Change Fellowship, a youth leadership program **(2018)**
* JENESYS, Kizuna Bond Project, run by the Japanese government, among 150 students to be selected from different schools all over India to promote understanding of Japan’s revival efforts in response to the Great East Japan Earthquake **(2012)**

# Poster Presentation

* Biswas O, Bodade A, Universal Platelets from induced plueripotent Stem Cells: A Review. Biotech Online Poster Presentation Competition by KITS, ABLE, IISc, IBAB and Biotechnika, 2020 Sep 17

# Publication

* ABhattacharjee R, Ghosh S, Nath A, Basu A, Biswas O, Patil CR, Kundu CN. Theragnostic strategies harnessing the self-renewal pathways of stem-like cells in the acute myeloid leukemia. Crit Rev Oncol Hematol. 2022 Sep;177:103753

# Skills

Python | Research | Excel | Power BI | Data analytics | Statistics | Molecular Biology and Cloning techniques | Cell bases assays | Mouse Dissection | Flow Cytometry | CRISPR-Cas9 | AWS | DevOps

# Certifications

* **Coursera**

Industrial Biotechnology | Introduction to the Biology of Cancer (with Honors) | Understanding Cancer Metastasis | DNA Decoded | HPV- Associated Oral and Throat Cancer: What you need to know

# Great Learning

Introduction to Artificial Intelligence | AI in Healthcare | Data Analysis using Excel | Conditional Formatting in Excel | Statistical Methods for decision making | Excel Tips and Tricks | CI/CD Pipelines with Jenkins and AWS | AWS Certified Developer – Associate

* **Microsoft** Get started building with Power BI
* **Pfizer UK** Molecule to Market job simulation

# Extra curricular activities and Societies

* **NSS-Target JEE**, KISS (Kalinga School of Social Sciences, Bhubaneswar, Odisha, India **(2018-2021)** Taught Chemistry to Grade 11 and 12 students, class of 50+ students, prepared them for school level and JEE (Joint Entrance Examination)
* **Voice of BT, organized by Novozymes and ABLE BEST (2019)** Student volunteer, coordinating events and participants
* **AIESEC, Bhubaneswar (2018-2020)** Team Leader, Outgoing Global Volunteer (oGV) handled operations related to matching of exchange participants, providing support with internship, tracking projects
* **Part of KIIT University Lawn-Tennis Team (2018-2020)** Participated in the Lawn Tennis East Zone University Games Tournament-2018

# Languages

English, French (DELF-DALF Certified), Hindi, Bangla, Odiya