

Swikriti Mondal

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EDUCATION

Carmel Convent High School

Secondary Education , 2019 , 92%

Durgapur

Feb 2018 – Mar 2019

Zoom International School

Higher Secondary Education, 2021 , 74%

Durgapur

Jun 2019 – Mar 2021

Hooghly Engineering & Technology College

B.Tech in Computer Science Engineering , 2025 , CGPA – 8.36

Kolkata

Jul 2021 – Jun 2025

SKILLS SUMMARY

- **Languages:** C, Java , SQL , HTML , CSS, JavaScript
- **Tools:** Excel, PowerPoint, MySQL
- **Platforms:** Jupyter Notebook, Visual Studio Code, IntelliJ IDEA
- **Operating Systems:** Windows , MacOS , linux
- **Soft Skills:** Communication, Leadership, Creative, Learner.

PROJECTS

Unsupervised Machine Learning for Gene Identification in Brain Tumor Subtypes

Team Project

Dec 2024 – Jun 2025

- Applied unsupervised machine learning (K-Means, Hierarchical Clustering, GMM) to classify glioblastoma subtypes using gene expression datasets (GSE16011 & GSE108474).
- Performed data preprocessing including normalization, redundancy removal, and dimensionality reduction using PCA.
- Validated clustering with metrics like Silhouette Score, Dunn Index, and Calinski-Harabasz Index to ensure accuracy and separation.
- Identified top genes from each cluster and analyzed their biological roles using STRING, Cytoscape, and Reactome for gene interaction networks and hub gene discovery.
- Key outcome: Identified hub genes (e.g., CSDE1, STRAP) potentially involved in glioblastoma regulation — supporting future biomarker discovery and targeted therapy research.

Personal portfolio website

Solo Project

- Developed a responsive and interactive personal portfolio website using HTML, CSS, and JavaScript.
- Showcased personal projects, skills, and contact details in a clean, modern layout.
- Ensured mobile responsiveness and cross-browser compatibility for smooth user experience.
- Applied best practices in web design and frontend development.

LANGUAGES KNOWN

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|-----------|--------|
| • English | ~ 100% |
| • Hindi | ~ 70% |
| • Bengali | ~ 100% |

ACHIEVEMENTS

- Received 3rd position in inter-college coding competition in college tech fest.
- Completed courses in data structures and web technology.
- Developed scalable web application during university studies in groups.