

Moirangthem Sonia

ASSISTANT PROFESSOR

Bhubaneswar, India

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Experience

Assistant Professor

Bhubaneswar, India

Institute of Technical Education and Research (ITER), SOA

June 2023 - Present

- Mentored approximately 120 students across different courses and projects within the Computer Science domain
- Delivered comprehensive instruction in Full Stack Web Development, covering front-end technologies like HTML, CSS, Bootstrap, jQuery and back-end technologies such as Java & Spring
- Guided 15 group projects through real-world projects, fostering hands-on experience in building dynamic web applications, debugging code, ensuring responsive design, and incorporating industry best practices.
- Evaluated and provided feedback on student projects during a 24-hour Institute-Level Hackathon, focusing on creativity, technical execution, and innovation, contributing to the selection of winners

Summer Research Intern

Guwahati, Assam, India

Indian Institute of Information Technology Guwahati

May 2022 - July 2022

- Reviewed and analyzed 11 research papers on "Detecting COVID-19 using Deep Learning" to extract key insights
- Aggregated data from 21 datasets, pinpointing 14 datasets directly related to COVID-19 for research purposes
- Collaborated on the implementation of Deep Learning models in the study

Freelance Developer

Manipur, India

Qubits Technologies

August 2021 - October 2021

- Developed a company website in collaboration with the team, utilizing WordPress as the platform
- Aggregated and integrated the company's services into the website for enhanced online visibility

Freelance Developer

Manipur, India

Soulification Online Services Pvt. Ltd.

March 2021 - August 2021

- Collaborated with a fellow developer in creating the Delivery Application and a Delivery Partner application, utilizing the Flutter Framework
- Managed the testing process and addressed post-deployment bugs for ongoing maintenance

Software Developer Intern

Manipur, India

Medilane Healthtech & Consultancy Services Pvt. Ltd.

September 2020 - February 2021

- Received training in gathering client information and utilizing Figma to design the UI and prototype
- Trained in implementing front-end features using Flutter

Education

Indian Institute of Information Technology Guwahati

Guwahati, Assam

MTech in Computer Science & Engineering, 8.38/10.00

August 2021 - May 2023

- Master Thesis: A Breast Cancer Prognosis Model using PyRadiomics and Image Segmentation from MRI data

Manipur Institute of Technology

Manipur, India

BE in Computer Science & Engineering, 80.12%

2016-2020

- Major Project: Comparative analysis of Python and Java for beginners

Comet School

Manipur, India

COHSEM (Class 12), 76%

May 2015

Tiny Tots' Unique School

Manipur, India

BOSEM (Class 10), 73.8%

May 2013

Publications

International Conference on Machine Vision and Applications (ICMVA '24) ACM

Singapore

M Sonia, I Kalita and D Devi. A Breast Cancer Prognosis Model using PyRadiomics and Image Segmentation from MRI data

March 2024

- Investigated concepts of radiomics (both hand crafted and deep learning based) and implemented the concepts to extract features from the breast cancer MRI
- DOI: <https://dl.acm.org/doi/pdf/10.1145/3653946.3653951>

- Comparison of a beginner friendly programming language based on the syntax and it's implementation
- DOI: <https://www.irjet.net/archives/V7/i8/IRJET-V7I8755.pdf>

Projects

Unattended Luggage Detection in Public Places

Bhubaneswar, Odisha

Ongoing Collaborative Project

August 2024 - Present

Diabetes Macular Oedema detection from OCT-scanned images

Bhubaneswar, Odisha

Ongoing Collaborative Project

May 2024 - Present

IoT-based Soil Moisture Monitoring System

IIIT Guwahati, Assam

Course: Internet of Things (IOT)

March 2023

- Designed and developed the architecture of the IoT system using NodeMCU ESP8266 for real-time monitoring
- Implemented the MQTT protocol for data transmission to the ThingSpeak cloud platform
- Configured sensors and microcontroller for continuous data collection and analysis

Training and Placement Website

IIIT Guwahati, Assam

Course: Database Management Systems (DBMS)

December 2021

- Created wireframes and prototype using Figma to outline the user interface and user experience
- Implemented the user interface using WordPress, ensuring a responsive and user-friendly design
- Developed backend functionalities using PHP and integrated the MySQL database for data management

Skills

Computer

Programming Language, Frameworks, Database, Web Technologies and Design Tools

- Programming Language: Java, Python, Dart, PHP | Frameworks: Spring, Bootstrap, Flutter
- Database: MySQL | Web Technologies: HTML, CSS, jQuery
- Design Tools: Figma, WordPress

Language

Fluent in English, Manipuri, Hindi

- English: Fluent (Strong reading, writing, and speaking skills; used extensively in education and teaching)
- Manipuri: Native
- Hindi: Conversational

Activity

- Participated in a Faculty Development Programme focused on Spring Boot 2.2 and React JS in July-August 2024
- Participated in National Level Short-Term Training Programme on Statistical Machine Learning in August 2023
- Participated in workshop on Brain-Computer Interface organized by Indian Institute of Information Technology Guwahati in 2022
- Volunteered for the "Swachh Bharat Summer Internship" in 2018-2019
- Volunteered for the "Imphal Jamboree" organized by Global Shapers Community: Imphal Hub in February 2018