SAYAK GHORAI

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EDUCATION

NIIT University, Neemrana   *Aug 2015 – Aug 2019*

Bachelor of Technology in Computer Science and Engineering
Cumulative GPA: *9.43*
Relevant Coursework: Specialization in Artificial Intelligence

TECHNICAL SKILLS

- **Strong Areas:** Machine Learning, Deep Learning, Artificial Intelligence, Digital Image Processing, Computer Vision
- **Programming Languages:** Python, JavaScript, Java, C/C++ (Arduino)
- **Libraries/Frameworks:** React.js, Express.js, Node.js, Redis, HTML5, CSS3, Tailwind CSS, Git
- **Database:** MongoDB, MySQL
- **Platforms:** Render, Vercel, Netlify, firebase, Kaggle, GitHub
- **Tools:** VS Code, Intellij, Google Collab, Asana, GitScrum, Trello, Google Analytics, Labelbox, Final Cut Pro, GarageBand

PROJECTS & RESEARCH EXPERIENCES

R&D on CNN based Human Face Emotion Detection   *TensorFlow, Pandas, Scikit-learn*

Classification model to detect human face emotions
- Explored Residual and Parallel connection blocks, different optimisation techniques and loss functions
- Achieved 63% accuracy on FER2013 and 68% accuracy on AffectNet dataset, using built from scratch model
- **Google Docs:** *Human Face Emotion Detection using Face Images*

Human Activity Recognition using Wi-Fi Channel State Information   *WiFi-CSI, TensorFlow, Keras, LSTM*

A project focuses on recognising human activity using Wi-Fi channel state information
- Used a readymade code for getting usual train test split, developed model architectures and done hyperparameter tuning
- Pushed the accuracy to 90% with good precision and recall, explored architectures like LSTM, learned fine tuning techniques
- **GitHub:** *sayakghorai34/HAR-using-CSI.git*
- **Kaggle Notebook:** *sayakghorai34/csi-har-notebook*

Library Manager WebApp » *sg34-library-manager.netlify.app*   *React, Node.js, Express.js, MongoDB*

A Simplified Library Management System for Library Authority
- Multi-Scene WebApp for book and user management using CRUD, with Check-in, Check-out books with slip generation
- Simplified Dashboard design using tailwind-css, and Regex match searching for easy resource handling
- **GitHub:** *sayakghorai34/Library-Management-System.git*

PeerMeet » *https://sg34-peermeet.netlify.app/*   *React, Node.js, Express.js, MongoDB, VideoSDK*

SDK based High Resolution Video Conferencing Application
- Zoom like video conferencing application with improved video quality, audio quality, and significantly less latency
- **GitHub:** *sayakghorai34/PeerMeet.git*

INTERNSHIP EXPERIENCES

Center of Excellence in Education Technology   *Jan 2024 – May 2024*
Technology & Media Desk Lead   *NIIT University*

- Helped to facilitate 150+ academic projects including 40+ industry linked projects
- Developed automations using APIs, and Python resulting into efficient project execution
- Created comprehensive documentation for project tools, detailing user instructions, potential issues, and solutions

Cats In Lab Coats Technologies (Startup)   *Sep 2022 – Apr 2024*
Technical Intern   *NIIT University*

- Developed ML models for near real-time image processing
- Contributed to assembling UAVs and Rover models for agriculture and defense
- Experienced in remote UAV piloting and ground controlling during medium/large size experimental drone operations.

Center of Excellence in Education Technology   *Feb 2020 – Jan 2021*
Technology & Media Desk Lead   *NIIT University*

- Helped to facilitate 100+ academic and several industry-linked projects by providing technical support and guidance
- Organized a workshop on using project management tools like Asana, successfully attracting over 250 participants
- Conducted data analysis for student assessment, aiding faculty with insightful reports

CERTIFICATES

PCAP: Programming Essentials in Python (7 Apr 2022) » *view certificate*   *7Apr, 2022*