Swayamjit Saha

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EDUCATION

West Bengal University of Technology (WBUT)
West Bengal, INDIA
BTech (Computer Science & Engineering)
GPA: 8.28/10
2016 – 2020

TRAINING

Jadavpur University
West Bengal, INDIA
Microelectronics and VLSI
2018 - 2018

REFERENCES

- **Kuntal Ghosh**
  Professor at Indian Statistical Institute, Kolkata [Email]
- **Garga Chatterjee**
  Professor at Indian Statistical Institute, Kolkata [Email]
- **Pradipta Roy**
  Professor at SVIST college (WBUT) Kolkata [Email]

RELEVANT COURSES

- **CS703C**: Artificial Intelligence
- **CS603**: Operating Systems
- **CS602**: Computer Networks
- **CS601**: Data Base Management System
- **CS302**: Data Structure and Algorithm
- **CS201**: Introduction to C Programming

ORGANIZATIONS

- IEEE Kolkata section (Student Member)
- IAENG (Member)
- Computer Society of India (Student Member)

SKILLS

Programming Languages:
- Python
- C
- Java
- System Verilog

Technologies/Frameworks:
- TensorFlow
- OpenCV

LINKS

- Google Scholar – [LINK]
- GitHub – swayamjitsaha

WORK EXPERIENCE

Center for Soft Computing Research: A National Facility — Jan. 2020 – Jul. 2020
Research Intern — Kolkata
Keywords: Information and data visualization, COVID-19
- Conducted an online survey among more than 100 participants residing in West Bengal, India to understand the impact on transportation, social, religious and economic activities due to the COVID-19 pandemic
- Implemented statistical correlational models using IBM SPSS to understand how different age groups are reacting differently to lockdown, and how their social, economic, and religious activities are getting affected altogether.

Indian Statistical Institute, Kolkata — Jul. 2019 – Dec. 2019
Research Intern — Kolkata
Keywords: skin tone, colorism, elliptical boundary model, Bengali, films
- Worked with the Ghilu: The Chatterjee Lab of Brain, Cognition and Society team members to detect the practice of colorism in Indian Bengali language films.
- Implemented Computer vision models for example, Elliptical Boundary model to detect skin color tone of cast members for the highest grossing movies for the past ten years. [Link]

University of Calcutta — Jul. 2018 – Aug. 2018
Image Processing Intern — Kolkata
Keywords: human facial features, detection, convolutional neural networks
- Worked with convolutional neural network model to detect human facial features for example, nose, eyes, frontal face etc.
- Built a custom dataset with human faces to feed the CNN. [Link]

Jadavpur University — Jun. 2018 – Jul. 2018
Image Processing Intern — Kolkata
Keywords: pattern matching, text file operations
- Worked at the NLP laboratory to find the common set of occurrences between two text files.
- Framed the solution in a complete C-backend environment to illustrate the outputs. [Link]

JOURNAL AND PREPRINT PUBLICATIONS

- **[J1] Swayamjit Saha**, Akash Roy Choudhury and Garga Chatterjee. Fair Heroes and Heroines, Dark Commoners- Colorism in Bangla Films (April 23, 2020). Available at SSRN Electronic Journal [Link]
- **[P1] Swayamjit Saha**, Niladri Majumder and Devansh Sangani (2020). Comprehensive forecasting based analysis using stacked stateless and stateful Gated Recurrent Unit models. *arXiv preprint arXiv:*2008.05575. [Link]

PROJECTS

Comprehensive forecasting based analysis using hybrid Machine Learning Models | Final year undergrad project — Jun. 2020
Swami Vivekananda Institute of Science & Technology (SVIST) college, affiliated to the West Bengal University of Technology | [GitHub] [arXiv]
Keywords: solar irradiance forecasting, hybrid machine learning models, LSTM, GRU, Autoencoder LSTM
- Implemented Python programming language to find detailed forecasting-based analysis of hybrid machine learning models viz. Stacked Stateless and Stateful LSTM, GRU, and Autoencoder LSTM.
- Results indicated Autoencoder LSTM neural networks performs better than Stacked Stateless and Stateful LSTM and GRU RNN models in comprehensive forecasting of solar irradiance.

HONORS AND AWARDS

- **Departmental Topper in Eighth semester with Highest SGPA 10 out of 10** | Jul. 2020 | Swami Vivekananda Institute of Science & Technology college, affiliated to the West Bengal University of Technology
- **Case Challenge Event (PwC)** | ESummit 2018 | Jadavpur University