Sk Mainul Islam

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RESEARCH INTERESTS

Statistical Machine Learning, Learning Theory, Artificial Intelligence

EDUCATION

Maulana Abul Kalam Azad University of Technology, Kolkata, West Bengal India

Bachelor of Technology, Computer Science, August 2014 (expected graduation date: June 2018)

- Thesis Topic: "A Machine Learning System for the Automatic Detection and Gradation of Diabetic Retinopathy in Fundus Images "
- Advisor: Prof. Aruna Chakraborty
- GPA: 9.22/10

West Bengal Council of Higher Secondary Education, West Bengal, India

Intermediate/+2, Science (Physics, Chemistry, Mathematics), May, 2012

West Bengal Board of Secondary Education, West Bengal, India

Matriculation, May, 2010

RESEARCH PROJECTS

Machine Learning + Image Processing   Undergraduate thesis, STCET

Advisor: Prof. Aruna Chakraborty   July, 2017 - present

- This project deals with the development of a machine learning system to detect and identify the grade of Diabetic Retinopathy from the images of the fundus of the eye.
- The project uses a Fuzzy Support Vector Machine for the purpose of classification and the results abide by WHO standards.
- We are developing a GUI application targeted at doctors who can use it to aid them in the process of diagnosis.
- The application will allow the user to use the pre-trained classifier proposed in this project or to to train his/her own classifier for the purpose of gradation of the supplied image.

Xcos on Cloud   FOSSEE, IIT Bombay

Mentor: Prof. Kannan M Moudgalya   Summer 2017

- Xcos on cloud is a project to port the core functionalities of Xcos to a browser-only version that can be used without installing additional plug-ins or software on the cloud.
- Two way communication for TK Scale block, generation of graphs dynamically, 3-D graph generation, modification of block parameters at runtime, identification of blocks are implemented in this project.
- The details of the project can be found at https://github.com/FOSSEE/xcos_on_cloud

INTERNSHIPS

- Successfully completed an internship in the Sponsored Project "Xcos on Cloud " at FOSSEE(Free and Open Source Software for Education), IIT Bombay in the Summer 2017.
- Attended the summer school by the Indian Institution of Science (IISc), Bangalore in the Summer 2016. Sessions on latest technologies and idea pitching were the keynote.

- Successfully completed the CEP Short Term Course entitled "Object Oriented Programming and Data Structure in C++ " organized by Department of Computer Science and Engineering, IIT Kharagpur in the Summer 2015.

CONFERENCES
WORKSHOPS

- Attended the **9th International Conference on Reversible Computation** (RC-2017), July 2017, Kolkata, India.
- Attended the **Workshop on Complex and Social Networks**, March 2017, Complex Network Research Group (CNeRG), IIT Kharagpur.
- Attended the **IEEE Workshop on IoT and Smart Cities**, August 2016, St. Thomas' College of Engineering and Technology, Kolkata.
- Attended the **Workshop on Computer Architecture and Numerical Methods**, June 2016, St. Thomas' College of Engineering and Technology, Kolkata.

ACHIEVEMENTS

- Received the **Fellowship** (full financial support) to attend the **9th International Conference on Reversible Computation** (RC-2017), July 2017, Kolkata, India.
- Received the **Certificate of Merit** for achieving **3rd** rank in the **Workshop on Computer Architecture and Numerical Methods**, June 2016, St. Thomas' College of Engineering and Technology, Kolkata.
- Received a **Certificate of Merit** in recognition of **excellent performance** in the **Secondary Examination** of 2010 from The **West Bengal Power Development Corporation Limited**.
- Awarded a **State Scholarship** for standing **7th in order of merit** in **Primary Final Examination**, May 2004, Primary Education Development Board, West Bengal.

COMPUTER SKILLS

- Languages: C, C++, Java, MATLAB, Perl, HTML, JavaScript, Verilog, some use of Unix shell scripts.
- Applications: LaTeX, common Windows database, spreadsheet, and presentation software
- Operating Systems: Unix/Linux, Windows.

EXTRA CURRICULAR
ACHIEVEMENTS

- Selected for final round of **Mathemagic** at **Techfest 2015**, Institute of Engineering and Management, Kolkata.
- Successfully completed 2 days training(including field training) on **Workplace safety and Health**, Safety Development Society, Kolkata.
- Received a Certificate from **Perfetti India Pvt. Ltd.** for participating in the **Alpenliebe Mukhosh Protiyogita**, 2002, a mask making competition.