MD ABDUL AOWAL

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RESEARCH INTERESTS

Machine learning, Deep Learning, Computer Vision, Applying Image Processing Techniques to Problems in Biometrics and Bimedical Imaging, Statistical Signal Processing

EDUCATION

Bangladesh University of Engineering and Technology   *October 2015 - Present*
Master of Science (M.Sc.), Information and Communication Technology

Bangladesh University of Engineering and Technology   *March 2009 - July 2014*
Bachelor of Science (B.Sc.), Electrical and Electronics Engineering   *GPA : 3.39/4.00*

Notre Dame College   *August 2006 - July 2008*
Higher Secondary Certificate (H.S.C.), Science   *GPA : 5.00/5.00*

RESEARCH PUBLICATION

[1] **Md Abdul Aowal**, Adeeb Shahriar Zaman, S M Mahbubur Rahman, Dimitrios Hatzinakos, "Static Hand Gesture Recognition Using Discriminative 2D Zernike Moments " *in Proceedings of 35th IEEE TENCON*, pp. 1-5, Bangkok, Thailand, Oct. 2014   *[pdf]*

RELEVANT COURSEWORK

- **Graduate** - Data Warehousing and Mining | Applied Cryptography | Distributed Systems | Advanced Networking
- **Undergraduate** - Digital Signal Processing | Continuous Signal and Linear Systems | Random Signals & Process | Probability and Statistics | Linear Algebra | Calculus I | Calculus II | Computer Programming | Computer Networks | Communication Theory | Control System
- **Online OCW** - Deep Learning (Udacity) | Learning From Data(edX) | Algorithms on Graphs (edX) | Machine Learning for Data Science and Analytics (edX) | Machine Learning (Coursera) | Neural Networks for Machine Learning (Coursera)

COMPUTER SKILLS

Programming Languages	MATLAB,Python, C, C++, R, Java
Python Packages	OpenCV, Scikit-learn, Scikit-image, Numpy, Scipy, Jupyter, Pandas, Matplotlib, BeautifulSoup
Web Development	PHP, Laravel, CodeIgniter, Javascript, jQuery, MySQL, NoSQL
Operating Systems	Linux, Mac OSX, Windows
Other Expertise	Git, Weka, Latex, Shell Script, PSpice, Proteus, Quartus II, PSAF, Packet Tracer, VBA, MS Office(Word, Excel, & PowerPoint)

INDUSTRY EXPERIENCE

Banglalink Digital Communications Limited   *October 2014 - July 2016*
Planning Specialist, BSS Planning, Technology

M2M Solutions & Services Limited   *March 2013 - September 2013*
Programmer(****part-time**)

SELECTED PROFESSIONAL PROJECTS

◇ Worked as a freelancer for more than 50 projects in different fields like automated data mining, data visualization, designing interactive web map etc.(*Python, PHP, C++*) *[profile link]*
◇ Worked as a core team-member in developing GPS based Location Tracker, Fuel Level Tracker(*C++, PHP, Apache*)
◇ Developed a web-based system to monitor Location Tracker, Fuel Level Tracker(*PHP, CodeIgniter, MySQL, jQuery*)
◇ Developed a system for automated report generation to monitor NEs of BSC, Transcoder & RNC(*Python, PHP, Laravel, MySQL, Javascript*)
◇ Developed a web based application for monitoring softswitch(*PHP, jQuery, MySQL*)

SELECTED ACADEMIC PROJECTS

◇ Bengali Character Recognition using Convolutional Neural Network(CNN) (*Python*) *Data Mining*
◇ Multi-client distributed password cracking system (*Unix C*) Distributed System
◇ DES implementation in ECB or CBC mode (*Java*) *Applied Cryptography*
◇ FDM based Electromagnetic Simulator (*MATLAB*) *Numerical Analysis*
◇ Automatic Packaging System for Automation in Industry (*Embedded C*) *Control System*
◇ Microcontroller based Electronic/Digital Piano (*Embedded C*) *Microprocessor Lab*
◇ Design and Simulation of an 8 Bit Computer capable of executing *Microprocessor Theory*
16 Instructions (*Proteus*)
◇ AM Radio Receiver (*Hardware Project*) *Communication Lab*

WORKSHOP ATTENDED

- **Pattern Recognition: Techniques and Fields of Application** conducted by *Mahdee Jameel, Rensselaer Polytechnic Institute, USA* & organized by *IEEE Bangladesh Section*
- **Workshop on Bengali Literature** organized by *Notre Dame Writters Club*

ACADEMIC HONORS AND AWARDS

- University Admission Test Excellency Scholarship
- Dhaka Education Board Scholarship by Ministry of Education, Bangladesh for excellence in H.S.C. Examination and S.S.C. Examination

EXTRA-CURRICULAR

- Presented a paper in the 35th IEEE TENCON, Bangkok, Thailand(October 2014)
- Acted as Vice-President of NDC Nature Study Club (July 2007 - June 2009)
- Participant of National Undergraduate Mathematics Olympiad (2010, 2013)
- Participant of Techkriti Robotics Competition of IIT Kanpur, Bangladesh round (February 2013)
- Member of Engineering Students Association of Bangladesh (ESAB)
- Sports: Team-member of semi-finalist team in Rag Football championship-2014 & Inter-hall football championship; Avid player of Cricket, Badminton, Table-tennis as well

REFERENCES

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