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SAIFUL ABU

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EDUCATION

University of Texas at El Paso (UTEP). M.S. in Computer Science (Expected July 2016). GPA: 3.85.

Thesis Title: Electricity Demand Prediction in PowerTAC competition Using Machine Learning.

Bangladesh University of Engineering and Technology. BS in Computer Science (Awarded April 2012).

Graduate Coursework: Artificial Intelligence, Advanced Algorithms, Categorical Data Analysis, Human Computer Interaction, Graduate Research Method, Risk Analysis and Complex Decision Making.

Undergraduate Coursework: Artificial Intelligence, Probability and Statistics, Machine Learning, Pattern Recognition, Data Structures, Algorithms, Database, Object Oriented Programming.

Online Coursework: Descriptive and Inferential Statistics, Machine Learning, Artificial Intelligence, Artificial Intelligence for Robotics, Introduction to Psychology.

EMPLOYMENTS

Research Assistant CS Department, UTEP August 2014 - Present

Intelligent Agents and Strategic Reasoning Lab: Developed electricity demand prediction module using machine learning for a smart grid simulator called Power TAC. Prepared training and test data set from raw data. Applied clustering and different classifiers to group and make prediction about the electricity demand. Reduced the prediction error from 31% to 13%.

Interactive System Group: Improved performance of exisiting code. Designed experiment, programmed to collect data and to visualize outcome. Participated in explaining prominent 25 factors found that explains how actions affect prosody.

Teaching Assistant CS Department, UTEP June 2015 - Present

Worked as a teaching assistant for the course Data Structures and Algorithms. Managed the lab section of around 60 students each semester. Contributed on increasing success rate of students than previous times by providing adequate office hours, writing blog articles, delivering lectures and creating online groups.

Software Engineer Mir Technologies, Bangladesh August 2013 – June 2014

Designed an VoIP dialler app for iOS by analyzing an existing android app. Improved voice quality of the app by using proper audio framework. Collaborated with customers, server-side developers and client-side developers of other platforms.

Software Engineer Hi-Tech Bangla, Bangladesh June 2012 – July 2013

Participated in developing a complex radar simulator for Bangladesh Air Force. Increased team performance by introducing version control, selecting proper software building platform and initiating regular team meeting. Participated in gathering software requirements by collaborating with the customers. Improved code by introducing Object Oriented and Design Pattern principles. Presented update to the customer at regular intervals.

Intern Software Engineer Structured Data Systems Limited December 2011 – June 2012

Fixed quick battery consumption problem of an android device by extending an existing app.

PROJECTS

- **Enigma Simulator** (2016). Developed world war 2 cryptographic device simulator. Hobby project. Java.
- **Healthy Work** (2016). Developed a smartwatch app to prevent overuse injury caused by repeatative computer usage. Hobby project. C++, Pomodoro principle.
- **Automated Poker Playing Agent** (2015). A successful poker playing agent (first place) for the tournament of Artificial Intelligence class. Java, Breadth First Search.
- **Phone Based Coffee Ordering System** (2015). An automated system that receives the phone call of a customer, gives them a menu, takes order from them and notifies the authority. PHP, MySQL, VXML.
- **Tomasulo's Algorithm Simulator** (2016). System architecture level instruction execution simulator. C.
- **Safe Browser** (2011). Developed a browser that prohibits websites with adult contents. Naive Bayes, C#.

SKILLS

- Java(Proficient); C++; C; Objective-C; SQL.
- Eclipse; XCode; Visual Studio.
- Windows; Mac OS; Linux.
- Weka, Data Extraction, Matlab.