Sakib Ar Rahman

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TECHNICAL STRENGTHS

Languages	Python, Android, C, C++, Java, MySQL, Matlab
Tools	TensorFlow, GIT, Android Studio, AWS, OpenCV, Arduino, Raspberry Pi, Keil

EXPERIENCE

IBM
September 2017 - December 2017

Data Scientist

- Overhauled a Regex based static text classification system by implementing and optimizing an **LSTM Recurrent Neural Network model** improving accuracy from 90% to 97%
- Collaborated on developing an automated **incremental learning** platform that enabled models to adapt to changing patterns in input data, minimizing model obsolescence using **TensorFlow Serving**
- Incorporated and trained an **embedding layer** using Google's Word2Vec model, improving existing RNN model training time and accuracy through word vectorization and context preservation
- Performed **correlation analysis** and applied visualization techniques in Python to data elements stored using MongoDB

UGO Mobile Solutions (TD Bank)
January 2017 - April 2017

Application Developer

- Worked on the development of a **digital wallet app** and built **PoCs** using **Alexa Skills Ki**t (Alexa Voice Service)
- Integrated **Veracode**, a cloud based security tool, into the existing continuous integration pipeline (**Jenkins** CI)
- Worked with various **Amazon Web Services (AWS)** offerings including **RDS** and **Lambda**.
- Improved the existing digital wallet platform, implemented bug fixes and refactoring of the code

BlueFire Technologies
May 2016 - August 2016

Software Developer

- Developed a mobile application that analyzed speech by converting it to text and performing text analysis
- Used **IBM Watson Speech to Text API** and different text analysis techniques to analyze user speech input
- Other technologies include - **Android GraphView** (for visualization), **Nuance Speech Recognition**, CMU PocketSphynx (for research purposes on speech recognition)

DevConsultants Ltd
August 2014 - September 2014

Engineering Intern

- Assisted professional engineers in preparing presentations, paperwork and other documents
- Collaborated on preparing **technical feasibility studies** report for infrastructure project worth over 1 billion dollars
- Prepared various **spreadsheets** and formatted raw data for presentations

PROJECTS

DrawSense

Developed a program that enables pencil-drawn diagrams to be used as an input device using an **Arduino**
- Wrote **python** scripts to filter out noise and perform **statistical analysis** on capacitance readings to determine touch
- Programmed a script that **calibrated** the system parameters to individual users based on their touch

Intruder Alert System (Raspberry Pi)

- Used light **adaptive background subtraction** algorithm in **OpenCV** to **track motion** and determine if an intruder is in the room
- Made use of **Simple Mail Transfer Protocol** library to remotely capture images and send as attachments through email notifying the owner of a break-ins

EDUCATION

University of Waterloo
2015 - Present

- Candidate for BASc for Honours Mechatronics Engineering

AWARDS

- **International Engineering Student Award** and **Presidents Scholarship of Distinction** for over 95% average
- Placed **third** among over two hundred and fifty participants at ConUHacks II, Concordia University