Sakib Ar Rahman

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TECHNICAL STRENGTHS

Languages	Python, Android, C++, Java, MongoDB, Postgres, Matlab
Tools	TensorFlow, GIT, Android Studio, OpenCV, Arduino, Raspberry Pi

EXPERIENCE

NVIDIA Corporation — January 2019 - April 2019
Computer Vision Intern - Autonomous Vehicles — *Santa Clara, CA*

- Working on various applications with the Visual Perception team within the autonomous vehicles group
- Developing DNNs to classify state of traffic lights in order to determine wait time conditions at major and minor intersections

Knowtions Research Inc — May 2018 - August 2018
Machine Learning Engineer — *Toronto, ON*

- Implemented an RNN Autoencoder which optimized Fuzzy C-means loss in addition to reconstruction loss in order to perform **unsupervised clustering through Neural Networks**
- Created CNN with character embedding lookup and BiLSTM RNN models to generate concept embeddings based on research into **ELMo (Embeddings from Language Models)**
- Revamped existing input pipelines to incorporate **TensorFlow's Dataset API**
- Created multiple **SQLAlchemy postgres** models to interact with remote Postgres servers
- Created a framework to generate different configurations for various TensorFlow models in a training pipeline based on centralized settings

IBM — September 2017 - December 2017
Data Scientist — *Toronto, ON*

- Overhauled a Regex based static text classification system by implementing and optimizing an **LSTM Recurrent Neural Network model** improving accuracy from 90% to 97%
- 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 — *Toronto, ON*

- 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)

BlueFire Technologies — May 2016 - August 2016
Software Developer — *Waterloo, ON*

- Developed an Android application that analyzed speech by converting it to text and performing text analysis
- Designed **UI wireframes** and implemented a tabular UI with a modular architecture

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 noise and perform **statistical analysis** on capacitance readings to determine 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

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