Résumé

Mohammad Yasin

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A. Academic Information:

1. Bachelor of Science (Computer Science & Engineering) from CUET CGPA: 3.42/4.00. Passing: 2015.
2. H.S.C (Science) from Adamjee Cantonment College, Dhaka GPA: 5.00/5.00. Passing: 2010.
3. S.S.C (Science) from Bangladesh Navy College, Dhaka GPA: 5.00/5.00. Passing: 2008.

(*) Enrolling in NLP/ML Research (M.Sc) under Dr. Muhammad Abdullah Adnan, BUET.

B. Technical Exposures to:

C, C++, Python, Machine Learning/AI, NLP etc.

C. Industry Experience:

Sr. Software Engineer (Samsung R&D Institute, Bangladesh): May 2016 – Feb 2019 (~2 years 9 months)

1. Android development, troubleshooting. Worked with different Android API & Samsung SDKs: Samsung Health Android SDK, Samsung In-App Purchase SDK, PEN.UP, Foldable display etc, used different libraries deeplearning4j, LDA-NLP, EventBus, Kryonet, Toasty, ormlite-with-sqlite, Firebase etc, around various concepts: ChatBot, Bluetooth, Location based app, openstreetmap APIs, Games AI, Google Map(openlayers), Sockets etc.
2. App development with agile team:
   a. Intelligent Chat Agent (web) to perform Real Time UI/UX Expression based on recent Chat Context. (NLU, LDA, Corpora Based Feature Mapping)
   b. ColorPhun Games(Android) Implemented With Deep-learning**:** Games AI**.**
   c. Distributed Client State Monitoring from Central Android Application (IoT).
3. Tizen app development, troubleshooting, Wearable Smart Watch App design/development using different Tizen Native API and Web API, and Galaxy Watch Designer tool, Web UI and Native Service Integration. Exposures to different APIs: Sensor, Application Framework, Location, ArcGIS, Messaging, UI, Web-Native, Security, System etc. Developed apps: Browsing with multiple tabs in WebView, System Information Retrieval for GPS and Data Roaming, Named Entity Recognition in Tizen Web Application(NLP) using Knwl.js, Editable Bookmark Widget on Map Application in Tizen (ArcGIS JavaScript-API based GIS application),
4. IoTivity based IoT Hub-Client Bi-directional Communication on Linux and Tizen. Worked on IoT stack of IoTivity in Linux, Tizen & IoT ARTIK board for client-server based application development.
5. Granted a research fund from Samsung for a PoC & proposal, "Bixby Automated Speech Recognition (ASR) for Bengali Language", later collaborated with BUET professor Dr. Muhammad Abdullah Adnan and his 5 RAs. Played key role on the development of core ASR processing engine from Samsung side.
6. Regular smart documentation on APIs/project status to maintain agile activity. Writing technical documentation for internal use, dev-tutorials and managerial stuffs.
7. Guided some interns achieving their project goals on time.
8. Open Source Activity:
   Tizen Developer Forum(https://developer.tizen.org/forums): yasinali (username)
   Samsung Developer Forum (http://developer.samsung.com/forum/en): shihabyasin (username)
   StackOverflow Developer Forum (https://stackoverflow.com/): Yasin shihab (username)

Sr. Software Engineer (TigerIT Bangladesh Ltd): Feb 2019 – Present

1. Generalized LVASR (Used: Kaldi, LSTM, Sequence-to-Sequence G2P, CMU-Sphinx etc.), phoneme design.
2. Multi lingual machine translation for chat application (Used: Neural MT, Fairseq, polyglot etc.).
3. Number plate text recognition (OCR) on robust environment (CNN, RNN, CTC, GAN, Attention Model etc.)
4. Scream detection from environment, keyword spotting for audio event detection.
5. Text generation (TF/IDF, transformer etc.) for QA, topic modelling, predictive text (LSTM, tree based).
6. Image tempering (fake/real) classification (using VGG, CNN etc.)
7. GPU intensive model training (tf-gpu, CUDA), plans data collection & augmentation techniques (for image & speech tasks), benchmarking etc.
8. Study different research works, Github repos & tutorials, device ways to implement/integrate within current solutions.
9. Regularly investigating & experimenting different ML/AI product ideas (PoC) that might create business opportunities in local & foreign market.

D. Professional Achievements:

1. SRBD (Samsung) Icon of the month (July-August 2018) for outstanding contribution to the development of Bangla ASR PoC for Bixby.
2. Samsung Software Certificate: Advanced Level (programming aptitude test).

E. Some of my Research

1. Research publication @Samsung. Customizing Grapheme-to-Phoneme System for Non-Trivial Transcription Problems in Bangla Language. Feb 2019, North American Chapter of the Association for Computational Linguistics (NAACL-HLT 2019), At Minneapolis, USA.
2. Extracting semantic relatedness for Bangla words, technically Co-sponsored by IEEE, IEEE CS, IEICE, IEEE TC-PAMI, IEEJ, JSME, JIN, U of Hyogo. May 2016, 5th International Conference on Informatics, Electronics & Vision (ICIEV)
3. Isolated Bangla Word Recognition and Speaker Detection by Semantic Modular Time Delay Neural Network (MTDNN). Dec 2015, 18th International Conference on Computer and Information Technology (ICCIT), Co-Sponsored by IEEE.
4. Transitive Closure Using Path Algebra Algorithm. Mar 2016, International Journal of Computer Science Issues.