

Farhan Ar Rafi

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Professional Summary

- 6 years of professional experience in Software Engineering; 1-year research experience in Bengali Language and Geonames; 6 months of tutoring experience
- 6 years of programming experience in Java; 1 year in Python, Octave and Javascript; 1 year in PHP
- Developed 5 Android software products used by thousands in Japan and several countries in Europe
- Achieved awards for both research and engineering excellence

Research and Teaching Experience

Geonames Classification for Bengali GeoWordnet 2010 - 2015

- Co-produced 660 Bengali classifications of Geonames achieving above 80% accuracy
- Earned **Vice Chancellor's Award for Best undergraduate thesis**
- Developed features in Bengali for classification of Geographical entity

Home Automation Using Android, Firebase and Raspberry Pi 2017 - 2018

- Developed Real-time Home Automation system based on Internet of Things (IoT)
- Used technologies - Android, Raspberry Pi, Firebase, Node.js

Mathematics tuition Spring - Fall 2016

- Taught mathematics for about 6 months to 5-6 BBA students
- Topics - Calculus, Probability, Algebra

Professional Experience

BJIT Limited - Senior Software Engineer Nov 2018 - Present

BJIT Limited - Software Engineer Aug 2015 - Oct 2018

- Earned **Best Employee of the year (2020)** for outstanding performance
- Performed Code Refactoring to reduce battery consumption by 1-5% in Pocktalk devices
- Trained 3 team members in Android and Android Open Source Project
- Engineered 2 security apps for Android Phone and Android TV
- Documented software specifications and tutorials in MS Word, Excel, and Powerpoint
- Performed research and development in the Internet of Things (IoT)

Eminence Associates for Social Development Mar 2015 - Jul 2015

- Solved IT issues and provided networking support to 20+ people in the office
- Managed a four people team to provide logistics and IT support to 200+ people in multiple seminar halls in the 12th International Conference on Urban Health (ICUH 2015)

Research Interests

- Natural Language Processing - Research with low resource & under-represented languages
- Machine Learning and Deep Learning - Meta-Learning, Research for developing/optimising algorithms that enable running on cheap/affordable hardware (i.e. Raspberry Pi)
- Cognitive linguistics - Application of computational methodologies in understanding how languages work in our brain and how the polyglot brain works in making connections between languages

Education

- M.S. Computer Science, Jahangirnagar University, 2018
- B.S. Computer Science and Engineering, American International University-Bangladesh, 2016

Awards and Grants

- Vice Chancellor's Award for Best Undergraduate Thesis, American International University Bangladesh, 2016
- 10,000 taka research grant from supervisor for assisting in research and developing a research proposal, American International University-Bangladesh, 2017
- Best employee award, BJIT Limited, 2020

Projects

Bengali Geonames Software

- Developed it as part of BSc research project for providing REST APIs to store and retrieve geographical location data.
- Used technologies - PHP, CodeIgniter, MySQL, Java, Spring Boot

PiController Android App and Raspberry Server

- Developed towards the completion of MSc research project
- Provides interface in Android for monitoring and controlling electronic appliances
- Raspberry Pi as a controller for home appliances and electronics
- Used technologies - Java, Android, Firebase, Node.js, Javascript

Speech and Image Translator Software for Android Embedded Device

- Real-time speech and text (from image) translator using APIs from Google, Baidu and others
- Contributed to the engineering of firmware changes for Android-based embedded device
- Used technologies - Android Open Source Project, Android, Java, XML

Antivirus Software for Android

- Security application for scanning virus, malware and Potentially Unwanted Applications
- Contributed to the development and maintenance of the project
- Used technologies - Android, Java, XML

Professional Certification

- Fundamental IT Engineer Examination (FE) of Information Technology Engineers Examination (ITEE), BD-ITEC, and (IT Professionals Examination Council) ITPEC, 2015
- Machine Learning, Coursera, 2020, obtained a 94.9% grade.
- Deep Learning Specialization, Coursera, 2020, obtained 98% grade (average of 5 courses)
- Web Application Engineering (Python, Jinja and WSGI)(CS253) - Udacity, 2013
- Natural Language Processing Specialization, Coursera (In progress)

Skills

- Proficient in general tools (Word, Excel, Powerpoint, Photoshop/Gimp)
- Programming Languages - Java, Python, Octave, PHP, javascript
- Development tools - Jupyter Notebooks, IntelliJ IDEA, VSCode

Publication in the queue for submission

- Bengali Geonames for Geographical Entity Classification in Bengali GeoWordnet