U Khyoi Nu

Mobile: 415-636-0427
Email: khyo.64@gmail.com
Website: https://khyokhyo.github.io

EDUCATION

MS in Computer Science Spring 2019 - Present
CGPA - 3.65/4.0 (6 credits)
San Francisco State University,
San Francisco, CA, USA

BSc in Computer Science & Engineering 2013 - 2017
CGPA - 3.5/4.0
Thesis - Gesture based Bengali transliteration keyboard for Android
Shahjalal University of Science and Technology,
Akhalia, Sylhet, Bangladesh

RESEARCH INTERESTS

Artificial Intelligence; Machine Learning; Human-Computer Interaction; Big Data;

RESEARCH EXPERIENCES

- **Gesture based Bengali Transliteration Keyboard for Android**
  - Analyzed different machine learning approaches and proposed an efficient technique for building a gesture based transliteration keyboard
  - Surveyed the text input speed for different typing and swiping keyboards
- **Sentiment Analysis on Bengali text to detect Cyberbullying on Social Media**
  - Collected and formatted 5000+ comments from different public pages of facebook using Graph API
  - Used word co-occurrence matrix, skip gram (1-skip-2-gram), Hellinger PCA, Sliding windows for determining the intent of any comment with accuracy of 70%
  - Used Multilayer Perceptron with ReLu (Accuracy - 60.52%), Identity (Accuracy - 69.23%), Logistic (Accuracy - 68.72%) and Tanh (Accuracy - 71.25%) functions
  - Experimented with Character to Sentence Convolutional Neural Network (CharSCNN) to find important words in a sentence

PUBLICATIONS

- *Ranit Debnath Akash, Khyoi U Nu and Biswapriyo Chakrabarty. An Approach to Sort Unicode based Bengali Text using Trie. International Journal of Computer Applications 163(11):18-22, April 2017.*
  http://www.ijcaonline.org/archives/volume163/number11/27439-27439-2017913764

PROFESSIONAL EXPERIENCES

Software Development Intern 2017 - 2018
Backpack Technologies, Inc.
Dhaka, Bangladesh

SKILLS

- **Programming/Scripting Languages** :
  C; Java; JavaScript; Python; PHP; HTML; CSS
- **Database** :
  MySQL; MongoDB; SQLite
- **Frameworks** :
  Laravel; React; NodeJS; HapiJS; Bootstrap
- **Tools** :
  Git; LaTeX; MATLAB; BigQuery; CircleCI; Postman; CISCO Packet Tracer; Google SketchUp
- **Familiar IDE** :
  CodeBlocks; NetBeans; Android Studio; Atom; PyCharm
- **Operating Systems** :
  Windows; MacOS; Linux

STANDARDIZED TESTS

GRE
Score - 306/340; Quant - 159; Verbal - 147; AWA - 3.5;
Date - 2018/09/10

TOEFL
Score - 101/120; Reading - 23; Listening - 29; Speaking - 22; Writing - 27;
Date - 2018/06/10

PROJECTS

- **Ekushe Bangla Swipe Keyboard** : **https://play.google.com/store/apps/details?id=com.bangla.keyboard**
  Ekushe Bangla is a gesture based **transliteration** keyboard for android with some additional features such as **next word prediction**, optimized word suggestion and bilingual keyboard. Determining the most efficient approach for **gesture detection** and implementation of the next word prediction using **machine learning** was the main challenge of this project. As of January 2019, the keyboard has been downloaded by **10,000+** users and has a rating of **4.3/5** in **Google Play Store**.

- **ProctorSUST** : **https://github.com/khyokhyo/proctorSUST**
  ProctorSUST is a website for Proctor office of Shahjalal University of Science and Technology (SUST) where the official activities such as approving the campus organizations, notice publication, policy determination, proctorial committee validation etc. are made easy with everything online. **Laravel 5.3** and **MySQL** database is used to develop the back end of this application and **Bootstrap** for the front end. Handling users with different roles and a large database was the main challenge of this project.

- **Slam Book** : **https://github.com/khyokhyo/slambook**
  Slam Book is a web application developed by using **Laravel 4.2** framework and **MySQL** database. It is a community site which provides a healthy environment where the user can get his own personalized slambook filled by his friends in a new and exciting manner with everything online. As my first web application, learning a new framework and implementing it within a very short time was a great challenge in building the project.

- **Best Pick** : **https://github.com/khyokhyo/bestPick**
  Best Pick is developed by using **Laravel 5.3** framework and **MySQL** database in back end and **Bootstrap** in front end. The website allows the registered users to post reviews on any product considering its price, quality and configuration which will help people to make decisions on buying them.

- **Smart Life** : **https://github.com/khyokhyo/smartLife**
  Smart Life is a website developed by using **Laravel 4.2** framework which provides an all in one facility for users with a guideline of health, food, shopping, traveling and emergency contacts with everything online.

- **TrackMe** :
  TrackMe is an **android** application to ensure the security of a person. When a call is not received it tracks the current location of the user and sends a message to the caller (who is enlisted in the trusted members group) specifying the users current location.

- **Potterheads** :
  Potterheads is a desktop game developed as a project for Networking course using **JAVA socket**. This game can be played by multiple players connected to the same network. Building a perfect socket connection was the main challenge in this project.

- **Fishing Game** : **https://github.com/khyokhyo/Fishing-Game**
  Fishing Game is a simple desktop game for kids developed in **Java** as a project for Object Oriented Programming course.

EXTRACURRICULAR ACTIVITIES

- Participated in "HackBackPack 2" organized by Backpack Technologies, Inc. and won an internship (2017)
- Participated in "National Hackathon for women 2017"
- Participated in "National Mobile Application Trainer and Innovative Application Development Program" (2015)
- Participated in "iferi.com & KAIZEN SUST Project Fair" as a team member of RoboSUST (Robotics club for students of SUST) showcasing an obstacle avoiding robot (2013)
- Solved around a hundred problems on UVA Online Judge