Kazi Hasan Ibn Arif

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RESEARCH EXPERIENCE

1. Generate 3D Bone from DICOM using Deep CNN — 2022

Undergraduate Thesis

- The goal was to present an automatic femur segmentation method based on deep CNN apting for femur-fracture risk screening. I modified 3D U-Net CNN architecture to segment femur in 3D Computed Tomography (CT) volumes. Our 26 patient datasets were augmented and used to train, validate and test the CNN model and compared to other automatic bone segmentation methods. My thesis was supervised by Dr. Mahmuda Naznin, Head of the Dept. of CSE, BUET.

2. Hybrid Deep Learning Model for Bangla Parts of Speech Tagging — 2021

Conference Paper

- Bangla pos tagging research is not so enriched like other prominent languages, and also with the scarcity of a decent amount of data, in this study, we have developed a hybrid network with the help of different DL techniques, including CNN and BiLSTM. This hybrid model is capable of capturing both local and global features of the textual data hence showing better results. We have achieved a performance far better than any recent study in this field. This paper was accepted in 2nd International Conference for Emerging Technology. I co-authored and presented this paper on 21 May, 2021.
  DOI:

PROFESSIONAL EXPERIENCE

Machine Learning Engineer at IQVIA — May 2022 – Present

- I am remotely working with Next Best - Recommendations Platform global team as part the product Orchestrated Analytics. My responsibilities are researching, implementing machine learning algorithms, build and deploy frameworks. These frameworks are being used by Sales Representatives, Executives, Business Analysts and Data Scientists of top pharma companies.

EDUCATION

Bangladesh University of Engineering and Technology (BUET) — 2017 – 2022

Computer Science and Engineering - ***CGPA - 3.39/4.00*** *(**3.89** in final year)* — *Dhaka, Bangladesh*

Chittagong College — 2015 – 2016

Higher Secondary - Science - ***GPA - 5.00/5.00*** — *Chittagong, Bangladesh*

TECHNICAL SKILLS

Languages: C, C++, Java, Python, JavaScript, Shell
Framework: Node, React, Pytorch, JavaFX, Git, OpenGL
Database: Oracle, PostgreSQL, MongoDB
Technology: Linux, Docker, kubeflow,

PROJECTS

Police Department Automation | Link | **React.js, Node.js, MongoDB** **2021**

- A web-app that maintains a police department and all of its work related to crime investigation. This ranges from basic HR management work like maintaining database of all the police as well as criminals and crime reports to active scheduling of all the police officers. This will be helpful in digitizing the existing police department record keeping.

Computer Graphics: Rasterization and Ray Tracing | Link | **OpenGL library, C++** **2021**

- Implemented Phong illumination, intersection of ray with different 3D objects (plane,sphere,pyramid etc.) intersection, multi-level reflection using ray tracing and texture from scratch, which can render realistic scene.

Lines of Action Game | Link | **Java, JavaFX** **2020**

- Developed a hurestic for Ai enabled board game and the GUI using JavaFX

CPP Compiler | Link | **Yacc, Lex, C** **2019**

- A complete compiler that generates equivalent 8086 assembly code from input C code. To build this I implemented Symbol Table, Lexical Analyzer, Syntax Analyze and Intermediate Representation Generator

Pinterest | Link | **PostgreSQL, PHP, HTML, CSS** **2018**

- Developed a website like pinterest and designed database

Angry Birds | Link | **C, iGraphics** **2017**

- Developed GUI based game using c graphics framework

EXTRACURRICULAR

Shabash Fakibaj LLC **2020 – 2021**

Campus Ambassador *Dhaka,Bangladesh*

- I volunteered and represented this organization in my campus which help undergrad students for pursuing higher studies.

  Participation Certificate:

AWARD

- Fusemachines AI Fellowship 2022
- University Merit Scholarship (7th Semester)
- Admission Test Scholarship
- Bangladesh Physics Olympiad Divisonal (Top 20)