

KAZI HASAN IBN ARIF

Machine Learning Engineer and Prospective Graduate Student

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RESEARCH EXPERIENCE

1. Generate 3D Bone from DICOM using Deep CNN

2022

Supervised by Dr. Mahmuda Naznin (BUET)

Undergraduate Thesis

- Our thesis goal is to present an automatic femur segmentation method based on deep CNN. We used two deep CNN models called the U-Net and the 3D U-Net to segment femur bone DICOM images. Our 26 patient datasets (which were later augmented to be 39 patient datasets) were used to train, validate and test the CNN models, and 13 patient datasets are used to test the models. We showed that 3D U-Net trained on accurate ground truth can predict with significant accuracy and precision.

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

2021

2nd International Conference for Emerging Technology

Co-Author

- Paper Link: 

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.

PROFESSIONAL EXPERIENCE

Machine Learning Engineer at IQVIA

May 2022 – Present

Roles:

Dhaka, Bangladesh

- Researching and implementing ML algorithms and tools
- Build and deploy ML framework for pharmaceutical industries

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

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 can manage workflow for Police Department, show various analytical data visually and basic HR management	
Smartphone Price Predictor in Bangladesh 🔗 Link Python, scikit-learn	2021
• Scrapped dataset from popular mobile website for mobile-phone, Rigorous prepossessing of data, Trained and compared between few algorithms	
Computer Graphics: Rasterization and Ray Tracing 🔗 Link OpenGL library, C++	2021
• Implemented Phong illumination and multi level recursive ray tracing to generate realistic scene	
Lines of Action Game 🔗 Link Java, JavaFX	2020
• Developed a hurestic for Ai based board game, GUI using JavaFX	
CPP Compiler 🔗 Link Yacc, Lex, C	2019
• Developed pursing, tokenizing, semantic analyser and x86 assembly code generator from input cpp code	
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
<i>Campus Ambassador</i>	<i>Dhaka, Bangladesh</i>
• 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)