Orbin Ahmed Acanto

GitHub Portfolio
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Abu Dhabi • UAE

EDUCATION

BRAC University — Dhaka, Bangladesh
Bachelor of Science in Computer Science & Engineering — May 2022
CGPA: 3.42 out of 4
Additional Coursework: Cryptography & Cryptoanalysis, VLSI Design
Activities & Societies: Robotics Club of BRAC University, Adventure Club of BRAC University

Mirpur Cantonment Public School & College — Dhaka, Bangladesh
Higher Secondary School Certificate
GPA: 5.00 out of 5

PUBLICATIONS

[1] O. A. Acanto, M. I. Drishty, A. Islam, S. Zaman, J. Ahmed and M. K. Rhaman, "A hybrid approach to determine patient's critical situation using deep learning algorithm," 2022 2nd International Conference on Computing and Machine Intelligence (ICMI), 2022, pp. 1-5, doi: 10.1109/ICMI55296.2022.9873684

WORK EXPERIENCE

Increments Inc
Software Engineer I
July 2022 – May 2023
Tasks-

- Analyze user requirement and determines operational feasibility

- Responsible for creating software requirement specification (SRS) for new project
- Followed the UML based methods to create: Use Cases and Activity Diagrams
- Implement machine learning algorithm into software application
- Build reusable component and developed responsive website using react
- Design responsive website on the Django web framework
- Integrate REST API to the frontend of the software
- Wrote well documented code for ERP software
- Deploy website to live server on AWS EC2 instance
- Perform manual testing. execute different test cases and validate the test output

Techynaf

Software intern

August 2021 – November 2021

Tasks-

- Collaborate with tech lead and complete different assigned task of frontend
- Testing software applications and report bugs
- Modified existing code to correct errors/bugs in the Laravel framework
- Documenting and fixing a wide range of technical issues
- Experimenting with program design elements

TECHNICAL SKILLS

Programming Language: React JS, Python, MySQL, HTML5, CSS3, JavaScript, jQuery, TypeScript

Frameworks: Django, TensorFlow, Frappe, Bootstrap, Tailwind

Technical Writing tools: Latex, MS Word

Developer Tools: Git, AWS.

Operating System: Windows, Ubuntu.

Python Libraries: NumPy, OpenCV, Face recognition, EasyOCR, Matplotlib, Pandas, Seaborn, Glob.

Software: PyCharm, VS Code, Cisco Packet Tracer, Sublime Text, Arduino IDE.

Language proficiency: IELTS [overall: 7] (reading: 7.0, writing: 6.0, speaking: 6.5, listening: 7.5)

PROJECTS

A Real-Time Critical Situation Detection | Python, TensorFlow, Keras, Blazepose, CNN, pandas

- The system detects facial expression and body posture of the patients
- Applied a heuristic approach to identify the critical situation
- The system also detects falling sequence of the patients like sitting, shoulder bending, leaning, falling
- Implement Convolutional Neural Network a deep learning-based architecture to identify facial expressions and BlazePose algorithm to extract the posture of the patients
- The combine model achieves a 67% accuracy on test set, which contains image of different scenario and light condition

Bengali Hand Writing Character Classification | Python, TensorFlow, Keras, CNN, pandas

- This is a classification problem of Bengali handwriting character
- Dataset contains 50 simple and 120 compound character, where more than 60,000 images
- Build a custom 22-layer CNN model for multi-class classification
- Trained the model using Image data generator for improved performance and data augmentation
- Tested the model in test set containing 10,000 images and got accuracy of 89%.

Skin Cancer Classification | Python, TensorFlow, Keras, CNN, Matplotlib, pandas

- This is a multi-class classification problem of different kind of skin cancer
- Implement deep learning-based 12-layer CNN model
- Got an accuracy of 73% after 25 epochs
- Resample unbalanced dataset
- Trained on HAM10000 dataset

Heart Disease Prediction | Python, Matplotlib, Skit-learn, pandas, SVM, Linear Regression

- Model comparison on heart disease dataset
- Implement SVM and Linear Regression model from skit-learn
- Analyze the performance of both of the models and compare them

In-depth Analysis of RNA Sequences in the context of mouse species | R, Bioconductor

- Implement using R programming language and Bioconductor
- Analyzed Genome assembly GRCm39 dataset
- Study the system-wide transcriptional changes of mouse gene
- Developed a lightweight and reusable RNA sequence pipeline to retrieves biological annotations, performs transcript quantification, multivariate analysis and performs principal component analysis (PCA), gene expression and module analysis
- Create interactive data visualizations and identifying experimental bias in large datasets.

Real-Time Face and Number Plate Recognition | Python, OpenCV, EasyOCR, Django, AWS

- This project was a security app, which takes CC camera input then identify and save unknown face along with number plate of the vehicle in the database
- System user can add name and other information with the unknown face
- The system can identify known faces and vehicle information from the local database
- The system user can go through different calendar time and check the list of visited car and people around that CC camera area
- Deploy the project in AWS server

http://thedainik71arbangladesh.com | Django, PostgreSQL, Vanila JavaScript, Ajax, Bootstrap, AWS

- It was a newspaper project to maintain online new portal
- Admin dashboard for 3 types of users (reporter, moderator, admin)
- The reporter can add reports and edit the previous report
- The moderator approves the report and different trending and special news
- Admin suspends reporter and moderator and changes their access credential
- News portal has home page which shows different category news in most trending order
- The user can toggle between English and Bengali language mode to read in their convenient language along with they can search and get different calendar date news from the news archive.
- Deploy the project in AWS EC2 instance

Movie DB | React JS, jQuery, HTML, CSS, Bootstrap

- Find ratings, released year, review etc. of movies in a different category
- Implemented using React, JavaScript and OMDb movie API for the movie information

https://makemymenu.io | React JS, Django, PostgreSQL, JavaScript, Ajax, Bootstrap.

- It is a restaurant menu digitalize software.
- System users can build and add multiple items and groups for their menus.
- Based on the items and combo system user can customize their menus dynamically, without updating the QR code.
- System user can view multiple statistics data about their menus based on customer's QR scans and they can change between different subscription plan.
- By scanning the QR code end users or customers can view available items, combo and promotional offers right through their phone.
- End user can order by scanning the QR code.

TestTube | React JS, TypeScript, Tailwind CSS

- This site is a copy of YouTube home page
- User can search and filter category of different category of videos
- User can view subscribed channel list and other information

findmyworks.com | Django, PostgreSQL, Vanilla JavaScript, Ajax, Bootstrap, HTML, CSS, Jinja2

- This is a digital job platform where user can build their resume and based on that they will be suggested by the system of particular job that matches their skills and other details.
- Users can build customized resumes for their portfolios.
- Users can post about their projects and publish for sponsorship opportunities.
- Users can participate in different skills quizzes and get certification of that skills.

A Car Rental Management System Website | Laravel, MySQL, JavaScript, HTML, CSS

- Users can rent different kinds of vehicles
- Users can post a review and complete payment through different online payment gateway
- Admin can modify any reservation, add new vehicle and driver.