THANVEER AHAMED

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OBJECTIVE

An ambitious graduate with excellent problem-solving and analytics capabilities, seeking a Machine Learning or Software engineer related career opportunity in a progressive organization that gives scope to enrich skills at a global level, learn team dynamics, and work towards the organization's growth.

EDUCATION

University of Moratuwa   **Moratuwa, Sri Lanka**
B.Sc.(Hons.) in Information Technology   *Sep. 2017 - May 2022*
- CGPA: 3.73 / 4.2 (Top 5% of the Batch)
- Grade : First Class Honours
- Dean's List Semesters : 3,4,7,8

St. Alyosious College   **Galle, Sri Lanka**
G.C.E. Advanced Level (Physical Science Stream)   *2016*
- Results: Maths - A, Physics - B, Chemistry - B | Z-Score: 1.7325

RELEVANT COURSEWORKS

- Data Structures & Algorithms
- Object Oriented Analysis & Design
- Logic Programming & Artificial Cognitive Systems
- Artificial Intelligence
- Advanced Topics in Mathematics
- Computational Mathematics
- Big Data Analytics
- Advanced Database Management Systems
- Data Mining & Warehousing
- Natural Language Processing
- Fuzzy Logic
- Artificial Neural Networks & Evolutionary Computing

EXPERIENCES

HeHealth (Pvt) Ltd.   **March 2022 - Present**
AI/ML Engineer   *Remote, Singapore*
- Worked on multiple health-related projects using Python, TensorFlow, Flask, AWS Elastic Beanstalk, AWS CodePipeline, and GitHub.
- Developed and experimented with various computer vision models for detecting male STD cases with a 91% overall accuracy.
- Conducted data and model versioning for experiments and used the SIDU algorithm for model explainability.
- Developed an online screening tool for assessing an individual's risk of contracting the monkeypox virus with a 95% accuracy rate.
- Utilized the Grad-CAM algorithm for model explainability and introduced new optimizations to improve model performance.
- Designed and developed an expert chat agent powered by the GPT3.5 model for resolving problems related to sexual health, sex education, STDs, STIs, and sexual activities.

iTelaSoft (Pvt) Ltd.   **July 2020 - December 2020**
Mobile Application Developer Intern   *Colombo, Sri Lanka*
- Designed and developed two enterprise level mobile application projects: Effi and iSponsor.
- Assisted in development of the front end of a mobile applications for iOS/Android using the Flutter framework.
- Worked with Google Firebase to design a notification system to notify mobile users of important messages.
- Utilized Android Studio as a development environment in order to develop, debug and visualize the application in both iOS and Android.

PROJECTS

Otiz | *Python, Flask, GPT3.5 and AWS*   **2023**
- An expert chat agent powered by the GPT3.5 model which can guide users in resolving their problems related to sexual health, sex education, STDs, STIs, and sexual activities.
- Developed a prompt to define the scope and the purpose of the chat agent and integrate the organization specific knowledge onto the chat agent.
- Developed and deployed a chatbot with a Next.js responsive interface on AWS S3 bucket and Flask API backend on AWS Elastic Beanstalk

HeHealth STD Project | *Python, Flask, TensorFlow, Keras and AWS*   **2022 to Present**
- An online screening tool that uses AI technology to provide a quick and non-invasive initial result of possible STD conditions based on uploaded images, allowing for convenient and confidential access to expert medical advice and treatment recommendations.
- Experimented with different CNN-based computer vision model architectures for detecting male STD cases.
- Designed and developed a CNN-based computer vision model by utilizing the Inception-ResNet-v2 as a baseline model for transfer learning, resulting in a 91% overall accuracy in detecting male STDs.
- Utilized the SIDU algorithm to provide the model's explainability.
- The server for STD scan flow was created using Flask API and deployed on Elastic Beanstalk, and a CI/CD pipeline was established with GitHub using AWS CodePipeline.

HeHealth Monkeypox Project | *Python, Flask, TensorFlow, Keras and AWS*   **2022**
- An online screening tool that uses AI technology to assess an individual's risk of contracting the monkeypox virus based on their travel and exposure history, providing personalized recommendations for the next steps.
- Developed the computer vision algorithm by transfer learning to classify monkeypox disease cases with 95% accuracy.
- Utilized the Grad-CAM algorithm to provide the model's explainability.
- Deployed the Monkeypox model using Flask API in AWS EC2 instance.

AI-based Movie Content Rating System | *Python, Transformers, React, TensorFlow, Keras and Google Colab*   **2022**
- The final year research project that aims to detect and rate violence, nudity, substance use, and profanity content in a movie based on Deep learning techniques in computer vision and audio processing.
- Project Role: Design and develop the violence content detection and rating module.
- Introduced binary violent video data set (each class with 1000 video clips).
- Introduced two multi-class violent video data sets with six violent classes(each class with nearly 400 to 450 video clips).
- Developed a novel binary violence classifier model using transformers, Bidirectional LSTM, and MLP classifier to detect violence in a video with 97% accuracy.
- Developed a novel multi-class violence classifier model to detect the class of violence where version 1 and version 2 multi-class violent video data sets got 82% and 88% accuracy, respectively.
- Designed and developed an algorithm to rate a movie clip's violent content.

Document Text Summarizer | **Freelance project** | *Transformers, Tensorflow, Keras and BERT*   **2022**
- A project that aims to build an application to generate abstractive text summaries using transformers and pointer generation concepts.

Predicting the Sales Volume of the Google Stock Price | *LSTM, Tensorflow and Keras*   **2021**
- Designed and developed an LSTM-based time series forecasting model that can predict the Sales Volume of the Google Stock Price.
- Cleaned the Google Stock Price Data set by following the proper data prepossessing steps.
- After fine-tuning the 4-layer LSTM Model architecture, 96,65,55 and 34 units were defined for 1,2,3 and 4th layer, respectively, with dropout regularizations of 0.2 .
- Able to obtain an R2 Score of 0.811 after fixing 1-lag.

Winkel | **Level 02 Industry based Software Project** | *Angular, Ionic, ASP NET Core and MSSQL*   **2019**
- Developed an online smart shopping application that is more user-friendly and takes individual user preferences to provide an optimum user experience for both buyers and sellers.
- Developed end-to-end rest APIs that enable a shopping app's core features.
- Developed an algorithm to gather user behaviors and provide suggestions and product recommendations based on user interest.
- Developed an algorithm that can track user location and send notifications to the user about new promotions and advertisements that tally with the user preference in nearby stores of sellers.

Real-Time Taekwondo Scoring System | **Freelance project** | *Angular, Ionic, ASP NET Core, MSSQL and SignalR* **2019**
- Developed a real-time taekwondo scoring system based on a hybrid mobile application with an administrator dashboard and a live scoreboard.

Skills

Programming Languages: Python, Java, C#, HTML/CSS, JavaScript, SQL
Databases Technologies: MySQL, Microsoft SQL Server, MongoDB, Firebase
Version Controlling: GitHub, GitLab
AI/ML Platforms & IDEs: Anaconda, Google Colab, Kaggle, Amazon SageMaker
AI/ML Libraries and Frameworks: Numpy, Pandas, Tensorflow, Scikit-learn, Matplotlib, OpenCV, Flask, Fast API
Development Tools: VS Code, Eclipse, Google Cloud Platform, Android Studio
Web Development: Node.js, Spring Boot, ASP .NET Core
Soft Skills: Leadership, Research, Writing, Project management, Team Work

Honors & awards

ADL AI SUMMIT Hackathon   2021
1 st Runners Up   *Axiata Digital Labs*
- AI related hackathon organized by Axiata Digital Labs associated with AWS, Snowflake and Dell.

Google Hash Code   2019
placed 9th in Sri Lanka   *Google*
- Hash Code was a team programming competition organized by Google for students and professionals around the world.

Dotitude Challenge   2019
Finalist   *99x*
- Dotitude Challenge was a coding challenge which is related to data structures and algorithms organized by 99x.

RealHack 2.0   2019
Finalist   *University of Kelaniya*
- Inter-University Hackathon organized by the Software Engineering Students' Association of the University of Kelaniya.

MOOCs

Neural Networks and Deep Learning - DeepLearning.AI (Coursera) | See credential

Improving Deep Neural Networks - DeepLearning.AI (Coursera) | See credential

Structuring Machine Learning Projects - DeepLearning.AI (Coursera) | See credential

References

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