Mohamed Mahmoud Ali

Software Engineer - Data Scientist

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mohamed-thesnak Thesnak

PROFILE

I am a fresh graduate of Computer Science. I am seeking to have a job as a software engineer or data scientist as I have good knowledge in these fields, good programming skills (Python - C++ - Java), algorithms, data structure, databases, object-oriented programming, deep learning, machine learning, and data analysis. I'm looking forward to learning more.

EDUCATION

Faculty of Computers and Artificial intelligent 2018 – 2022
Cairo University Cairo, Egypt
Bioinformatics Department

PROFESSIONAL EXPERIENCE

Multi-Omics Data Analysis Intern
Children's Cancer Hospital Foundation 57357
- Understand biological data Analysis.
- Apply and deploy different machine learning algorithms in biological data.
- Understand Statistical Analysis.

Bioinformatics Trainee at ECBAG
- Biological Databases
- Linux
- Drug Design
- Next Generation Sequencing Analysis

Software Engineering and Ai Intern at Orange Digital Center and Instant
- OOP
- Data structure
- Algorithms
- Python for AI
- Anaconda & Jupyter Tutorial
- Mathematics (Linear Algebra)
- Statistics
- Probability
- machine learning
- OpenCV

Co-Founder
BIO CODE society
First Student activity for bioinformatics students

SKILLS

- Programming Languages (Python - C++ - Java - SQL)
- Object Oriented Programming
- Data Structure
- Algorithms
- Problem Solving
- Machine Learning
- Deep learning
- Deployment
- Databases
- Data Analysis
- Statistical Analysis
- OS (Windows / Linux)
- Html&Css&javascript

CERTIFICATES

Multi-Omics Internship - Children's Cancer Hospital Foundation 57357
08/2021-09/2021

Twenty Fourth Place CairoFCAICPC 2020 - ICPC - International Collegiate Programming Contest
(04/2021)

Data analysis challenger track FWD
06/2022-08/2022

GALACTIC Problem-solver Nasa Space Apps Challenge |
(1 - 2 / 10 / 2022)

Software Engineering and Ai Intern at Orange Digital Center and Instant
08/22-11/22

IBT 2020 - H3ABioNet
(07/2020-09/2020)

PROJECTS

GRADUTION PROJECT
Predicting Covid-19 protein-protein interactions

- Grade: A+
- Building a complete site that is used to predict whether a protein will bind to the covid-19 proteins or not
- Data collected from the BioGrid dataset.
- In phase 1 we mapped the data using a protein analysis package called BioPython which applies a non-physiochemical feature extraction.
- The data has been normalized using the Z-score method.
- The data has been classified using a random forest classifier which gave us a 99.33% accuracy,
- 98.2% with SVM classifier and 87.8% with the Logistic Regression classifier.
- In phase 2 we mapped the data using AVL tree method which is a computational method.
- Protein sequences are represented as a numeric representation according to each amino acid depth in AVL.
- The sequences classified by RNN (BiRNN) got a 99.58% accuracy and this is a great accuracy for an algorithm-based mapping method.
- Deploy these models as a web application using flask framework.
- you can try the live version on: https://cppi.onrender.com

Bioinformatics web server
BIOSTOCK
- A biological web server that provides a biological database and bioinformatics functions.
- HTML | CSS | PHP | JAVASCRIPT | MySQL
- https://bio-stock.000webhostapp.com

Ask - SpaceToon (Your Space Explorer Assistant)
- An Ai Application that helps to discover space
- Search NASA data using NLP Model.
- Deploy the model as a flutter android mobile application. https://github.com/Thesnak/Ask-SpaceToon

Research student management system
- Student management system is a project that have a many function like :
- Adding student using linked list Student linked list items (name,department, number of registered courses, pointer to linked list of student's courses, pointer to next students)
- Adding student subject grades as a branched linked list from students which contain (subject name , total , grade, point)
- https://github.com/Thesnak/Data-Structure-Project

Graphics Project
- A program used to draw various shapes using the C++ language by Win32
- Applying different optimization algorithms for drawing shapes that are required for the tool
- C++
- https://github.com/Thesnak/Graphics-Project

Mapping the ASL Alphabet Letters Using VGG16 and ResNet50
- Two different architectures of CNN (VGG16 - ResNet50) to predict the sign language of ASL images with an accuracy of 99% percentage.
- ASL is a complete and organized visual language that is expressed by facial expressions as well as movements and motions with the hands.
- https://github.com/Thesnak/ASL-using-VGG16-ResNet50

Biological Command Line Interpreter
- Biological functions command line tool that analysis biological sequences.
- https://github.com/Thesnak/Biological-Command-Line-Interpreter

LANGUAGES

- Arabic
- English