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Peter Safwat
Software Engineer

SUMMARY

self-motivated, creative, problem-solver, and determined Engineer with a flair for creating elegant solutions. Passionate about software architecture and cloud computing. my objective is to contribute more to the open-source community.

WORK EXPERIENCE

Software Engineer   `2018-present`
Bee Interactives., Full-time

- Developing and directing software system validation and testing methods.
- Analyzing data to effectively coordinate the installation of new systems or the modification of existing systems.
- Managing the software development lifecycle.
- Developing and executing project plans.
- Applying mathematics and statistics to problem-solving initiatives.
- Applying best practices and standard operating procedures.

Backend Developer   `2017-2018`
Egyadv., Full-time

- Main focus on coding and debugging
- Build high-quality reusable code that can be used in the future
- Develop functional and sustainable web applications with clean codes
- Define and communicate technical and design requirements
- Collaborate with Front-end developers

Programming Instructor   `2017-2018`
Pharaonic Technology Systems., Part-time

- Provide hands-on instruction and practical training in Java, Python, and Arduino.
- Teach courses from beginner level to advance.
- Create instructional materials

EDUCATION

BCS. Faculty of computer and artificial intelligence   `2016-2020`
Cairo University

  Major - Computer science
  Minor - Information systems

SKILLS

Languages	Arabic (mother tongue) English (professional)
Programming Languages	PYTHON, JAVASCRIPT, C#, C++, PHP, JAVA
Databases	MYSQL, POSTGRESQL, MONGODB, REDIS
Frameworks	LARAVEL, REACTJS, ANGULAR, DJANGO, EXPRESS, RUBY ON RAILS

PROJECTS

World Youth Forum
Laravel, Jquery   *wyfegypt.com*

A System that helped the WYF organizers filter and validate all the candidates for the Forum, with a very large database operation we overcome many performance challenges

Orange sonetelhaya
Reactjs, Laravel, Nodejs   *orange-sonetelhaya.com*

A Video Generator, I Worked in this project as a full-stack,

- creating the frontend using react

- in order to preview the video in a short time we used Lottie.js.

- and we recorded the video using node.js, puppeteer, and FFmpeg.

- we used WebSockets to give realtime feedback to the user.

Bznsbuilder
Angular, Laravel   *bznsbuilder.com*

Worked as A fullstack and a technical consultant, i helped with creating team authorization system as well as optimizing complex calculation and query preformanc.

Picks courier
Laravel, Jquery   *pickscourier.com*

picks courier is a start-up based in Cairo, Egypt. it offers delivery solutions to individuals, SMEs, and corporates. We own and manage a highly professional courier network through an innovative business model.

Dijkstra Visualization
Reactjs   *react-dijkstra1.now.sh*

An Interactive Dijkstra Algorithm Visualization tool using react and vis.js. visualize the solution of max flow problem and shortest path

Game AI
P5js   *github.com/peter44322/p5js-search*

An Ai For a searching game it uses prolog to make a tree of the game states. it also has an interactive UI for setting the initial state of the game and show the solution.

C Lexical Analyzer
Python   *github.com/peter44322/lexical-analyzer*

Python Lexical Analyzer for c syntax. it uses the magic of regex to identify the syntax and categorize them.

Music Player
Reactjs   *github.com/peter44322/react-songs-app*

Web Music Player Using nextjs and Napster Apis.

KingsMen
Nodejs, MongoDB, Jquery   *github.com/peter44322/KingsMen*

An Express.js Cloths shop Web app with MongoDB database

Vector quantization
Java   *github.com/peter44322/vector-quantization*

Java Implementation for the Vector quantization Compress Algorithm.

Fuzzy ToolBox
Python   *github.com/peter44322/FuzzyToolBox*

Fuzzy Logic Implementation in Python with a graph plotter

Adaptive huffman coding
Java   *github.com/peter44322/adaptive-huffman-coding*

Java Implementation for Adaptive Huffman Compression Algorithm.

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smooth curve fitting
Python   *github.com/peter44322/smooth-curve-fitting-genetic-algorithm*

Python genetic algorithm used to fit a curve giving some points and graph them.

Knapsack genetic algorithm
Python   *github.com/peter44322/Knapsack-genetic-algorithm*

Solving the Knapsack problem using genatic algorithm.

Tic tac toe Game
Reactjs   *github.com/peter44322/reactjs-tic-tac-toe*

Reactjs Tic Tac Toe Game

Calculating pi by collisions
P5js   *github.com/peter44322/calculating-pi-by-collision*

A Visualization for calculating the digits of pi using elastic collisions between two objects of different masses and a wall. Let me explain with this diagram.

CryptoMail
Nodejs   *github.com/peter44322/CryptoMail*

Secure nodejs Mail server implemented using blockchain with peer to peer architecture.

OPEN SOURCE PACKAGES

DyForm
Laravel   *github.com/peter44322/dy-form*

An Open source Laravel package to help create dynamic forms with high-performance insert and retrieve operations.

Completeness Checker
Laravel   *github.com/peter44322/laravel-completeness-checker*

An Open source Laravel package to help track the completeness of an entity, it calculate how many fields the user has filled and it generates a percentage of completeness.

Swaggerator
Laravel   *github.com/peter44322/Swaggerator*

An Open source Laravel package to help Developers document their APIS With a bunch of easy commands.

JoQueryGenerator
Laravel   *github.com/peter44322/JoQueryGenerator*

An open-source laravel package to help optimizing data tables query. with the help of the Clovis addon it joins table conditionally.

Html Extractor

Nodejs   *github.com/peter44322/html-extractor*

    Nodejs tool for extracting html ,js ,css files from a giving url

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Vast Converter

PHP

    Converter for converting vast xml files version 1 to vast version 2

BOOKS & COURSES

Books	Clean Code - Robert Cecil Martin
	The Nature of Code - Daniel Shiffman
	Head First Design Patterns - Elisabeth Freeman and Kathy Sierra
Courses	CS50's Introduction to Computer Science - Harvard
	Good Parts of JavaScript and the Web - Douglas Crockford
	THE ODIN PROJECT
	Web Development - Udacity

PUBLICATION

- Laravel dynamic databases - Medium Article

LIFE PHILOSOPHY

however difficult life may seem, there is always something you can do, and succeed at. It matters that you don't just give up - Stephen Hawking

REFERENCES

Available upon request