Peter Atef

Software Engineer

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Education

Cairo University   **Sep. 2019 – Present**
*Bachelor of Computer Engineering, **GPA: 3.5 of 4***   *Graduation Year: 2024*

Technical Skills

Programming Languages: C++, Python, JavaScript, C, Dart,
Mobile development: Flutter, React-Native.
Data Analysis: NumPy, Pandas, Matplotlib, OpenCV, Scikit-learn
Databases: MySQL.
Others: Microsoft Office, MATLAB, Github, Linux

Relevant Coursework

- OOP
- Data Structures
- Algorithms
- Database
- Probability and Statistics
- Image Processing
- Computer Architecture
- Machine Learning
- Operating systems
- Agile methodology (Scrum)
- Clean Code
- Computer Graphics
- Flutter
- Problem-Solving
- React-Native

Experience

ITI Egypt   **08/2022 - 09/2022**
React-Native Summer Training   *remote*

- Learning React-Native fundamentals: dealing with mobile UI, Context, Redux
- Building Todo app. **Project Link**
- Building e-commerce system. **Project Link**
- **Certificate Link**

NVIDIA   **2022**
Machine learning workshop   *remote*

- Learning from real machine learning engineering working at NVIDIA by applying on the supervised learning's pipeline using NVIDIA GPUs.
- NVIDIA DLI Certificate for the successful completion of Fundamentals of Deep Learning. **Certificate Link**

ITI Egypt   **09/2022 - 10/2022**
AI Summer Training   *remote*

- Learning Linear algebra fundamentals.
- Learning Probability fundamentals.
- Learning Machine-learning fundamentals .
- Learning deep learning basics.
- **Certificate Link**

The National Telecommunication Institute (NIT)   **07/2021 - 08/2021**
AI Summer Training   *remote*

- Learning data analysis using Python using Numpy, Pandas, and Matplotlib
- Learning how to deal with supervised learning models.
- **Certificate Link**

Projects

Reddit Clone | *Flutter, Dart, Bloc, Agile, Github*   ***Project Link***

- Participated in developing the front end of a mobile application for Android using Dart and the Flutter framework.
- We were a team of 25 members containing backend, cross-platform, and DevOps sub-teams.
- Collaborated with team members using version control systems such as Git to organize modifications and assign tasks.
- **My Role**: System Authentication, Searching module, Setting, Unit testing
- Skills: Responsive Mobile app and website - Bloc Design Pattern- Unit Testing - Teamwork.

E-Commerce System | *React-Native, JS, Context, Redux, Axios, Async-Storage, Github, Expo*　***Project Link***

- I built an online Store that gets the product using API and gives you the option to add and remove them to your cart to buy them.

Virtual Calculator | *Image processing, OpenCV, machine learning, Python.*   *Project Link*
- Machine learning project to build a hand-detection project to detect the numbers and the arithmetic operations..
- We used SVM as a machine learning model and we got an accuracy of 90 percent.
- **My Role**: pre-processing "image enhancements", Accuracy Calculations

Color detector | *Pandas, OpenCV, Python.*   *Project Link*
- I built a color detector for videos and images program using OpenCV and Pandas.

Search Engine | *Java, OOP, Data Structures, Threading, MongoDB*   *Project Link*
- Build a Search Engine using mainly three components Crawler, Indexer, and Ranker.
- **My Role**: I worked on the Indexer which is a pre-processing before storing the data in the DB, and I participated in building the website.
- we got first place among all teams in this project because of the high performance of the code and how it manages the resources.

OS scheduler | *C, Linux, Algorithms, Data Structure*   *Project Link*
- Utilized an operating system scheduler and Memory Management that scheduled different processes using the Shortest Remaining Time Next (SRTN), Highest Priority First (HPF), and Round Robin algorithms.
- **My Role**: I was the team leader of this project. I was responsible for building the structure of the project and implementing HPF and RR algorithms.

Hospital management | *C-sharp, SQL, MySQL, Database*   *Project Link*
- Building a Hospital Windows application system.
- System capabilities: Handle multi-users, Handle the privileges of each user, Make appointments for the patient, and Keep track of the patient's medical history.
- **My Role**: I participated in building the DB scheme, I built screens like doctor, nurse, and patient screens.

Logic Simulator | *C++, OOP, Data Structure*   *Project Link*
- Built the application mainly for designing and simulating circuits, as well as saving, copying, cutting, pasting, restoring, undoing, and redoing actions.
- Dealt with several object-oriented programming (OOP) concepts, including polymorphism, inheritance, abstraction, and encapsulation.

Five-stages-RISC-Pipelined-processor | *Computer Architecture, Verilog, Problem Solving*   *Project Link*
- Simulation to Processor Hardware using Verilog program and Model-Sim.
- **My Role**: I was the team leader for this project - I designed the interface between different modules and how they will communicate with each other- I designed the instruction set - I built the decode stage in the project - I participated in building the core module that handles the interactions with different modules.

Projects in Progress
- **Hand Gestures**: machine learning model to detect the numbers constructed with a hand with pre-processing on the image to enhance the accuracy which is the most challenging part because the data set is so noisy.
- **Game Engine**: Building a game engine using C++.

Honors / Awards

Orange Digital Center (ODC)   **summer 2022**
Certificate Link   *Project Link*
- * I got a fourth place over about 50 other students in the Competitive Programming Hackathon by Orange Digital Center in C++.
- * The competition was on a website called Coding Game on a game called Spider Attack.

Certificates (*Link*)

Flutter Course on Udemy   **2022**
72 hour course   *Certificate Link*
Python Course on Mahra-Tech   **2023**
Online Course   *Certificate Link*
Web development basics on Udacity   **February 2022**
Certificate Link