# Peter Ater

Software Engineer

Giza, Egypt

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## Education

Cairo University Sep. 2019 – Present

Bachelor of Computer Engineering, GPA: 3.6 of 4 (Excellent Grade)

Technical Skills

Programming Languages: C++, Python, JavaScript, C, Dart,

Mobile development: Flutter, React-Native, Kotlin.

Data Analysis: NumPy, Pandas, Matplotlib, OpenCV, Scikit-learn

AI: Langchain, Agents, Chains, OpenAI

Databases: MySQL.

Others: Microsoft Office, MATLAB, Github, Linux

## Relevant Courses

• OOP

• Data Structures and Algorithms

• Harvard CS50's Database

• Operating systems

• Image Processing

• Harvard CS50's Artificial Intelligence with Python

• NLP

Networks

• Probability and Statistics

• Discrete Math

• Computer Architecture

• Machine Learning

• Flutter

• React-Native

• Agile methodology (Scrum)

## Experience

# VNCR Media Group

1/7/2023 - 1/10/2023

England - remote

Graduation Year: 2024

Generative AI Internship

• It's a great experience to be part of a company outside Egypt and to have the chance to work on very interesting projects and meet new people from all over the world.

• Technology used: Langchain, Agents, Chains, OpenAI, Python.

Ejada

4/7/2023 - 17/8/2023

Mobile Development Internship

• I'm a member of a mobile development team that is required to build complex mobile apps using React-Native and

Android Kotlin.

• We built a lot of apps like Mnara El-Seha as a hospital system app. GitHub Repository

• Completion Certificate: Link

NVIDIA

Machine learning workshop

Egypt - remote

2022

Egypt - on-site

• Learning Fundamentals of Deep from engineers 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

React-Native Summer Training

Egypt - remote

• Learning React-Native fundamentals: dealing with mobile UI, Context, Redux

• Building Todo app. Project Link

• Building e-commerce system. Project Link

• Certificate Link

ITI Egypt 08/2022 - 09/2022

AI Summer Training

• 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

Egypt - remote

AI Summer Training

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

Egypt - remote

# Software Development Projects

## **KidAI** | *Unity*, *Agile*, *Python*, *C sharp*, *Github*

In development

- This is the graduation project that I'm currently working on which is a tool that teaches machine learning to kids from 8 to 18 years old using games!!
- The idea is to go through the machine learning pipeline starting from creating the data set and going through the training and validation process then testing the machine learning model inside the game environment.
- Skills: Responsive Mobile app and desktop Unit Testing Teamwork.

#### 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 twenty 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.

### 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.

### 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** $\mid C++, OOP, Data Structure$

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.

#### Game Engine $\mid C++, OpenGL, GLSL, CMake$

Project Link

- Phase 1: Building a game engine using C++.
- Phase 2: Using the game engine to implement in a real game.
- My Role: I participated in building the search engine with my team which was a challenging task for us because we were implementing everything from scratch. Also, I build the lighting system in the game to control the game lights and finally, I participated in designing and implementing the game's main logic.

# Other Projects

#### **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.

#### 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.

## 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.

## Cairo University: Faculty of Engineering

Spring 2023

 $Certificate\ Link$ 

Project Link

- My team and I got first place in Maze solving competition and second place in the line follower competition.
- The first competition was to build a car that follows the track line in minimum time and the second competition was to use the car to solve a maze in minimum time using the shortest route.

My Role: I participated in building an Android native mobile application using Java to send a signal to the car representing the speed level of the car. The app was required to send a high-speed signal to the car whenever there is a straight line and a low-speed signal whenever there is a curve.

Technology used: Java, OpenCV, Image Processing

# 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

Certificate Link

February 2022