Cairo, Egypt
+2(010) 017-96904

# Nader AbdalGhani

github.com/naderabdalghani
naderabdalghani@gmail.com

## EDUCATION

**Giza, Egypt**                    **Cairo University**                    **September 2016 — July 2021**

- B.Sc. in Computer Engineering. Grade: Very Good (B equivalent).
- Relevant Coursework: Data Structures & Algorithms, Programming Techniques, Operating Systems, Software Engineering, Computer Architecture, Database Systems, Machine Intelligence, Big Data Analytics.

## PROJECTS

- **project rev**: Researched, mapped out and led the architecture and development of a 5-module audio-interactive personalizable chatbot. [Python, Natural Language Processing (NLP)]
- **Analysystem**: Implemented a financial analysis system using Google Apps Script API for a large-scale content publisher. Extensively optimized the sheet to run as quickly as possible under Google Sheets limitations. [JavaScript]
- **Nabd**: Incorporated internationalization, GPS tracking, and designed most of the user interface (UI) scenes and forms, contributing to the app becoming a $60,000 government award finalist. [JavaScript, React Native]
- **Othello (Reversi)**: Created a basic Othello (Reversi) game implementation that supports two types of playing agents: either a human or a general minimax alpha-beta pruning agent. [Python, Artificial Intelligence (AI)]
- **kabsa**: Built a compiler using Bison & Flex C++ interfaces that supports 8 language constructs, semantic and syntactic error detection and generates code for a hypothetical stack-based machine. [C++, Lex, Yacc]
- **Battleships Game**: Developed the famous battleships guessing game, specifically the ships-placement mechanism and simulated scrolling chat using queues data structure and 8086 Assembly graphics mode. [8086 Assembly]
- **Doclense**: Contributed to the development of an OCR web app by implementing a text separation algorithm and creating a classifier model achieving 99% accuracy on a custom dataset. [Python, Image Processing, Neural Networks]
- **32-bit RISC Pipelined Processor**: Implemented a regex-based assembler and modelled the memory stage of a 5-stage 32-bit pipelined processor. [Python, VHDL]
- **E7gzly API**: Created, designed and documented a RESTful API featuring 17 endpoints for a football matches ticket reservation web app. [Python, Django, Database Systems]
- **Database Tuning**: Reduced queries running time by an average of 60% by utilizing memory management, indexes tuning, and query execution plan optimization. [Database Systems]
- **Developed Dynamic Multilevel Feedback Queue Scheduling Algorithm with Aging Criteria for Starvation Mitigation**. [Research Paper]

## WORK EXPERIENCE

**Freelance Software Developer**                    **May 2019 — Present**

- Sustained 100% Job Success and Client Recommendation scores on Upwork.
- Built automation scripts that fetch, manipulate and display data from an API as marked out by clients.
- Made a couple of React & React Native apps edits and additions.

## EXTRACURRICULAR ACTIVITIES AND COURSEWORK

- **Coursera Natural Language Processing Specialization**.
- **Udacity Deep Learning Nanodegree**.
- **CMP 2021 Conference Co-host:** Co-hosted and introduced teams in a 14-team conference.
- **1 Million Arab Coders Initiative Android Developer Track**.

## SKILLS

- Python, C++, JavaScript, Java, SQL, VHDL, Assembly, C, Verilog, Version Control (Git), Database Design & Optimization, Cloud Services (Google Cloud), Distributed Computing, Object-Oriented Programming, Data Analysis, Deep Learning, Natural Language Processing, Design & Analysis of Algorithms.