

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, Machine Intelligence.

PROJECTS

- **project rev:** Researched, designed and coordinated the architecture and development of an audio-interactive personalizable chatbot. [Python, Natural Language Processing (NLP)]
- **Nabd:** Implemented internationalization, Uber-like ambulance 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 is playable by both humans and general minimax alpha-beta pruning agents. [Python, Artificial Intelligence (AI)]
- **kabsa:** Built a compiler using Bison & Flex C++ interfaces that 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 text separation algorithm in addition to dataset and classifier model creation. [Python, Image Processing, Neural Networks]
- **32-bit RISC Pipelined Processor:** Implemented a regex-based assembler and modeled the memory stage of a 5-stage 32-bit pipelined processor. [Python, VHDL]
- **E7gzly API:** Created, designed and documented a RESTful API for a football matches ticket reservation web app. [Python, Django, 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 a 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** (certificate available upon request).
- **Udacity Deep Learning Nanodegree** (certificate available upon request).
- **CMP 2021 Presentation Skills Conference Co-host:** Presented and introduced my team as well as other teams.
- **1 Million Arab Coders Initiative Android Developer Track** (certificate available upon request).

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.