

Work Experience

Software Engineer	FrontStory	February 2022 — Present
--------------------------	-------------------	--------------------------------

- Collaborated with product managers to solely maintain a Django-based campaign creation tool that launched an average of 100,000 campaigns per year across five Demand-Side Platforms (DSPs)
- Leveraged parallel processing to reduce creatives processing times by 60%, significantly minimizing request timeouts
- Delivered UI/UX improvements using Alpine.js, jQuery, and vanilla JavaScript to streamline campaign creation workflows
- Integrated two additional DSP APIs, expanding reach and increasing diversification
- Revamped the user management system, introducing a new user type to better support organizational needs
- Developed background and cron jobs to automate creative assets housekeeping and reduce manual workloads
- Optimized ad revenue and audience targeting for high-traffic content arbitrage websites through interactive JavaScript widgets, interstitials, browser extensions, and third-party pixel integrations
- Boosted ad performance and engagement by optimizing ad unit placements for desktop and mobile across one-pager and quiz content formats
- Participated in the migration of a campaign management dashboard to React to improve maintainability and performance

Freelance Software Developer	(9 Jobs)	May 2019 — January 2022
-------------------------------------	-----------------	--------------------------------

- Earned “Top Rated” status and sustained 100% Job Success and Client Recommendation scores on Upwork
- Implemented a financial analysis system using Google Apps Script API for a large-scale content publisher. Extensively optimized the system to run as quickly as possible under Google Sheets limitations

Education

B.Sc. in Computer Engineering	Cairo University	September 2016 — May 2021
--------------------------------------	-------------------------	----------------------------------

Projects

project rev	PyTorch, Hugging Face, Natural Language Processing (NLP)
--------------------	---

- Conducted research, designed the architecture, and led a team of four in developing a five-module, audio-interactive, personalizable chatbot

Nabd	React Native, Redux
-------------	----------------------------

- Incorporated internationalization, GPS tracking, and designed most of the user interface (UI) scenes and forms for a first-aid emergency assisting app, helping it become a \$60,000 government award finalist

kabsa	C++, Lex, Yacc, Compilers
--------------	----------------------------------

- Built a compiler that supports eight language constructs, detects semantic and syntactic errors, and generates code for a hypothetical stack-based machine

Othello (Reversi)	Python, Artificial Intelligence (AI)
--------------------------	---

- Created a basic Othello game that supports two types of players: a human and a minimax alpha-beta pruning agent

Battleship Game	8086 Assembly
------------------------	----------------------

- Developed the ship-placement algorithm for the popular Battleship guessing game
- Emulated chat room scrolling using a queue data structure and 8086 Assembly graphics mode

Technical Skills

- **Programming Languages:** JavaScript/TypeScript, Python, C++, SQL
- **Frameworks & Libraries:** React, jQuery, Django, Serverless Stack Toolkit (SST), AWS SDK, AWS CDK
- **Tools & Services:** Git & GitHub, PyCharm, WebStorm, Amazon Web Services, Visual Studio Code