

EMPLOYMENT

Backend Engineer, Intern **Arch17** **Aug 2018 – Jan 2019**

E-commerce website for architecture and interior design.

- Implemented a notification system to display the latest updates.
- Developed an advanced search engine that helps users explore new furniture.
- Enhanced, maintained the business center system that enables users/stores to add & edit their products.
- Implemented various custom modules to handle Referrer-Redirection, Media Uploading, and Image editing.
- Implemented a blogging system that helps designers explore & Showcase their projects.
- Tech stack: PHP, MySQL, CodeIgniter, Git, Linux.

EDUCATION

Specialization **University of Alberta** **Mar 2020 – Present**

- Software Design and Architecture Specialization
- Object-Oriented Design; Design Patterns; Software Architecture; Service-Oriented Architecture.

Mansoura, Egypt **University of Mansoura** **Aug 2014 – Jul 2018**

- B.Sc., Faculty of Computer and Information Science, Computer Science department.
- Projects:
 - **AI agent** to solve Knights Tour Using IDS Algorithm;
 - **Programming Language Design** using GOLD Builder System.
 - NLP tool: text prediction and spelling correction.

TECHNICAL EXPERIENCE AND SELECTED PROJECT

- **Stock Market Decision Support System using Deep Learning & Sentiment Analysis.** ([Link](#))
Tech stack: Python; Keras; PHP; Scikit-learn; Numpy; Pandas; Matplotlib; Textblob.
- **Arabic NLP tool used to perform Text Search, POS tagging, Translation, and diacritization.** ([Link](#))
Tech stack: Python; NLTK; Pyamorph; Tashkeela.
- **Python package to Fetch & Analyze Stock Market data.** ([Link](#))
Tech stack: Python; Numpy; Pandas; Textblob; Matplotlib.
- **Stock Market Prediction Using Neural Network Models.** ([Link](#))
Tech stack: Python; Numpy; Pandas; Keras.
- **Image Segmentation Using Otsu Threshold Method.** ([Link](#))
Tech stack: Python 2, Numpy, Matplotlib, PIL.
- **GUI software to Encrypt\Decrypt file(s) using Advanced Encryption Standard (AES).** ([Link](#))
Tech stack: Python; Pycrypto, Tkinter.
- **Video Sharing website using pure PHP.** ([Link](#))

ADDITIONAL EXPERIENCE

- **IBTIECAR2018 Innovative Competition:** Qualified to the Final Round for the AI and Federated ML Track.
- **Problem solving:** Solved 200+ algorithmic & mathematical problems on multiple **online judges**.
- Participated in **Problem solving competitions** SnackDown (2017) & A2OJ Code battle (2017).
- **Summer Internship** at ITI Mansoura {Open Source Development} (Jul 2017 – Sep 2017)
- **Web Developer** at **United Nations Volunteers** (UNV) program. (2020)

LANGUAGES AND TECHNOLOGIES

- **Languages:** PHP; Python; C++; C#.
- **Web:** CodeIgniter; Django; MySQL; HTML; CSS; Javascript; AJAX; JSON; Bootstrap;
- **Tools:** Microsoft SQL Server; Anaconda; XAMPP; phpmyadmin; MySQL Workbench; Git; Keras;
- **Concepts:** Problem Solving; Data structure; Algorithms; OOP; MVC; Unit testing; Design Patterns; Linux; Web Development; Database; Version Control Systems; REST API; Machine Learning.