
AHMED H. ELSHEIKH

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github.com/elsheikh21 elsheikh21.github.io



ML/NLP Engineer

Work experience

April 2022 - Present	<p>Cybersecurity Analyst/ML Engineer</p> <p><i>Consulthink</i></p> <ul style="list-style-type: none">- Develop a dashboard monitoring & analyzing 10GBps network using Python, TimeScale DB, Grafana, Docker- Develop a Packets clustering algorithm to have better understanding of the network behavior using Python, Scikit learn, Dash, Poetry
Nov 2021 - May 2022	<p>NLP Engineer (Full time)</p> <p><i>Screevo S.R.L</i></p> <ul style="list-style-type: none">- Implemented a voice-controlled (STT) web and desktop actions recorder using Python, PyAutoGUI, SeleniumBase, poetry.- Developed and deployed a flutter mobile app to transcribe user input and extraction of custom entities and intents via RASA, Regex, and logging conversations on the device- Managing a team of 2 in the development of a voice-controlled mobile app (flutter) and its backend (python, pymysql, fastapi & uvicorn) as well as securing it via keycloak, adding security against XSS & SQL injection. Managing the UX of the conversations between app & user. Backend is deployed on AWS- developing & deploying (on AWS) the backend for a voice automated desktop-based app via python, fastAPI & Uvicorn, as well as developing the UX of the conversation- Built a web and desktop user actions recorder to automate their daily boring tasks using Python & Selenium- Developing Speech-To-Text model with LM head using Python, PyTorch on AWS EC2 instance- Developing and maintaining the Speech-To-Text fine-tuning pipeline using Python, PyTorch, Transformers, TorchAudio- Developing auto-correction of the Speech-To-Text output using Python, python-levenshtein, GCP
Nov 2021 - Jan 2022	<p>NLP Engineer (Part time)</p> <p><i>Moment One</i></p> <ul style="list-style-type: none">- Developing a conversational Chatbot to cater to our customers' needs using Python & RASA- Building the NLP pipeline, Cleaning and preprocessing of data (removal of stopwords, punctuation, lemmatizing/stemming tokens), model training (intent and entities specification and their corresponding values). Model is trained & deployed using (SageMaker) AWS and data is logged to MySQL database (hosted on AWS)
Jun 2021 - Nov 2021	<p>NLP Engineer (Internship)</p> <p><i>Outmind</i></p> <ul style="list-style-type: none">- Improving semantic search engine using Elasticsearch client and Python- Clustering of existing data and new documents using Scikit-learn and Python based on textual content using TF-IDF and semantical information using BERT (pre-trained Language Models) and clustering those vector representations using KMeans & -2steps- Agglomerative clustering to account to the large amounts of documents (100,000s of documents). The models were trained and deployed using SageMaker (AWS)- Scraping the web for textual data using Scrapy and Python to fetch documents from the internet, cleaning them and preprocessing the data, and storing data to S3 (AWS)
Sep 2020 - Nov 2021	<p>Cofounder (CTO) - Website development</p> <p><i>ChiChi Wear</i></p>

	- Developed & maintaining ChiChi e-commerce website - chichiwear.com. LCP of 2.1 s, 5000+ Visitors/month
Mar 2019 - Aug 2019	Machine Learning Engineer (Internship) <i>AI Launchpad - Lyra</i> - Time series forecasting (Sales, Risk, Churn). Sentiment Analysis using Python, Scikit-learn, Numpy, Pandas - Designing and implementing of the UI/UX of the admin dashboard using Python Dash
Apr 2018 - Mar 2019	Backend & Web Developer (Remote Part time) <i>Bucket</i> Built & Maintained backend for iOS & Android mobile apps, and Admin Panel using C#, T-SQL, Asp.net Designed and Implementing of Admin panel UI/UX using HTML, CSS, JS, Bootstrap and ASP.net
Jul 2018 - Sep 2019	Full Stack Web developer (Remote Part time) <i>Talents Arena</i> - Developed & Maintained hiring platform functionalities using JS - Designed and Developed the UI/UX of the company's website using HTML, CSS, Bootstrap, Bootstrap-tour
Jul 2017 - Jun 2018	Software Engineer (Full time) <i>Enterprise Consultancy Services - ECS</i> - Developed & Maintained HR Portal (AFREXIM Bank) using JS, HTML5, CSS3, Bootstrap 4, Java EE - Developed & Maintained Online Cafeteria System (TBTD-Egypt) functionalities and its UI/UX using Java EE, SAP UI5, JS, T-SQL - Developed an Online Chatting Platform (demo) using MongoDB Express JS Node JS and designed its UI/UX via Angular - Revamped the UI/UX of POS v2.0 (El Ezabi Pharmacies) using C#, T-SQL - Developed a multi-factor Authentication System using Python - Developed a Statistics Analysis Desktop app using C# - Developed a System to Export & Send employees attendance sheets using C# - Developed a Notification System UI/UX & its functionality for Lunch Ordering using C#, HTML, CSS, JS - Developed a scheduled task uploads files every 24hrs using C#, SFTP. And couple of other Services
Feb 2017 - May 2017	Junior Teaching Assistant (Full Time) <i>The German University in Cairo</i> - UI/UX & Web Development using HTML, CSS, JS, Bootstrap - Arduino & Computer Vision (30 students in class, was teaching 4 classes) using C++
Feb 2016 - Jan 2017	Junior Researcher <i>Aratronics Lab GUC</i> - Design of Skid Steering AWD mobile using SolidWorks, modeling using C (Arduino), controlling using PID, Matlab, LabView. - Detection & Recognition of Hand Gestures using Matlab

Publications

Published a paper in EMNLP 2021,

Date: Nov 2021

Title: Integrating Personalized PageRank in Neural Word Sense Disambiguation

Description: Outperforming the SOTA in WSD with 65% reduction in the number of trainable parameters

Method: Building WSD pipeline from scratch, preprocessing text using Pandas & NLTK, dynamically padding all sentences to have the same length so our models can train in an optimized way, the model was built using PyTorch, and experiments were logged using Weights & Biases library

Education

2018 - 2021	Artificial Intelligence and Robotics
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La Sapienza Università Di Roma, Rome, Italy

Grade: 104/110

Most of the projects done during the MSc were built and deployed using Google Cloud Platform (GCP)

2012 - 2017

Mechatronics Bachelor Degree

The German University in Cairo (GUC), Cairo, Egypt

B+ overall GPA, A+ Bachelor GPA

Skills

Arabic

Mother tongue

English

Professional Working Fluent (Speaking, writing)

Italian

Intermediate (A2)

Skills

Poem Writing

Bachata Dancing

Pottery

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