IBRAHIM SHARAF ELDEN

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WORK EXPERIENCE

- **Software Engineer (Data Mining), Flying Elephant Lab|Yaoota.com (November 2016 – August 2017)**
  - Built a data mining and visualization pipeline for log files centralization and monitoring using Elastic Stack (Logstash, Elasticsearch, Kibana).
  - Created, maintained and monitored web crawlers for online stores using Scrapy framework.
  - Enhanced Named Entity Recognition model to detect two new entities to improve search results using SpaCy.
- **Software Engineering Intern, Flying Elephant Lab|Yaoota.com (September 2016 – November 2016)**
  - Intern with Data Mining team (2 months), implemented multiclass text classification solutions, part of building intelligent web scrapers.
- **Software Engineering Intern, Microsoft Research|ATL Cairo (July 2016 – September 2016)**
  - Intern with Bing team (2 months), built a dashboard to provide statistics for *Bing for Partners* portal.

EDUCATION

Ain Shams University **September 2013 – July 2017**

- BSc, Faculty of Computer and Information Science, Computer Science department.

SELECTED PROJECTS

- **Clustering of Crash Reports** (Mozilla): Built a tool to cluster slightly different crash reports, reporting the same problem. It supports crashes reported to the Mozilla Socorro crash reporting system.
  - Toolkit: Python, Gensim, NumPy, Request, Flake8, Coverage and Pytest.
- **Bing for Partners Dashboard** (Microsoft Research): A data mining pipeline to provide user engagement numbers for *Bing for Partners* portal.
  - Backend: Implemented a pipeline that runs a Scope script which pulls data from Cosmos, save it to a SQL Azure database after data cleansing and aggregation.
  - Frontend: Built an ASP.net MVC website to display statistics and plots of traffic data.
  - Toolkit: C#, Scope, SQL, Entity Framework, HTML/CSS/JS, Power BI.
- **Neural Conversational Model**: Built an open domain chatbot based on this paper using Recurrent Neural Networks and LSTMs, responsible for model building and data preprocessing.
  - Toolkit: Python, TensorFlow, NumPy, CUDA, NLTK, HTML/CSS/JS and Django.
- **CNN Text Classification**: Implemented a multiclass text classification scripts using Convolutional Neural Networks (Python, TensorFlow, NLTK).
- **Chess AI Engine**: Implemented an optimized AI engine with user-friendly GUI using Minimax & Alpha-Beta pruning algorithms (C++, SFML).
- **N-Puzzle AI Solver**: Built an AI for the famous sliding tiles game for arbitrary number of tiles, using A* algorithm and Breadth First Search (C++).
- **Pascal Compiler**: Implemented lexical and semantic analysis phases for Pascal (C#, Gold Parser).

Qualifications

- **Languages**: Python, C++, C#, SQL.
- **Concepts**: Object Oriented Design, Test Driven Development, Data Structures, Algorithms, Artificial Intelligence, Machine Learning, Natural Language Processing, Data Mining, Data Visualization.
- **Problem Solving**: Solved over 400 algorithmic & mathematical problems on *Codeforces*, *UVa* & HackerRank.
- **Extracurricular Activities**: Participated in ACM Egyptian Collegiate Programming Contest (2015)**,** Facebook group founder to provide technical guidance for college students (+5000 active members).
- **Founder** (StudyGroups'17)**:** Curated paths for Machine Learning, Full Stack Web Development & Android Development to help +300 students reach their technical potential.