Eslam Hussein

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Objective

Seeking an internship that pertains data analytics, machine learning and software engineering during summer 2020

Education

Virginia Tech	PhD student - Computer Science	3.82 GPA
Cairo University	Masters in Computer Science - 2016	
	Bachelor in Computer Science – 2007	3.68 GPA

Skills

Languages: Scala, Java, Python, C/C++, C#, VB.Net, Prolog, SQL/TSQL
Frameworks/Systems: Spark, Hadoop, Scikit-Learn, NLTK, Microsoft SQL Server, MySQL, Linux, ASP.NET, LINQ, WCF, XML, Javascript, JQuery, Git, SVN, RDF, Docker, Singularity
Natural Languages: English, Arabic

Work

Advanced Research Computing (ARC) *Aug 2019 – present*
Research Assistant, responsible for developing and maintaining and deploying containerized applications on ARC clusters (Docker, Singular)

Social Computing Lab, Virginia Tech *Aug 2018 – Aug 2019*
Research Assistant, responsible for designing, executing the YouTube audit project

Qatar Computing Research Institute, Doha *Apr 2016 - Jun 2018*
Research Associate, had several responsibilities developing/maintaining/testing Arabesque and QFrag

Cairo University *Sep 2007 - Mar 2016*
Assistant Lecturer, Taught several Computer Science courses (Data Structures, Algorithms, NLP, AI, Software Engineering I and II, Artificial Intelligence)

Azhasys, Cairo *Aug 2011 - May 2012*
Software Engineer, developed a couple of projects
1. *PrevWage*: an employee payroll management module, Technologies: VB.Net, SQL Server 2008, JQuery
2. *NOSR*: an event management module

Technologies: ASP.NET, SQL Server 2008, JQuery

Infinite Software Solutions Inc (ISSI) *Nov 2010 - July 2011*
Software Engineer, developed a communication module which sends Emails, Faxes and SMSs to a list of recipients
Technologies: ASP.NET, WCF, LINQ, SQL Server 2008, JQuery, Subsonic, NUnit

Data Mining & Computer Modeling Center of Excellence, Cairo *Apr 2008 - Sep 2010*
Software Engineer, responsible for designing and developing a couple of projects
1. *Revenue Management System* (Plaza Hotel - Alexandria): A desktop application that uses machine learning to predict the revenue for the Plaza hotel

Technologies: C#, SQL Server 2005, Crystal reports
2. *Web portal* (Egyptian Ministry of Tourism): A portal that uses machine learning to forecasts the number of tourists arriving in Egypt based on historical tourists arrival statistics in Egypt

Technologies: ASP.NET, SQL Server 2005, OLAP

Projects

Arabesque is a distributed graph mining system, I had:
1. optimized the memory utilization
2. built applications on top of Arabesque
3. built and configured hadoop clusters
Technologies: Hadoop, Apache Spark, Scala, Java, Python

QFrag is a distributed graph search system
I was responsible for porting QFrag to work on top of Apache Spark instead of Giraph/Hadoop
Using: Hadoop, Apache Spark, Scala, Java

YouTube Audit: this project aims to audit the search and recommendation systems of YouTube for recommending misinformative videos (fake news, conspiracies, rumors ... etc.) to the end user. I am responsible for:

1. Experimental design of the project
2. Data collection and processing
3. Developing artificial bots that mimics the user interactions with YouTube (searching, watching videos)
4. Developing models that classifies YouTube videos utilizing features such as titles, descriptions, video statistics and users comments

Technologies: Python, Selenium, Node.js, Pandas, Matplotlib, and Scikit-learn

Publications

1. *Nature inspired algorithms for solving the community detection problem*. **Eslam Hussein**, Ahmed Ibrahem Hafez, Aboul Ella Hassanien, Aly A Fahmy. Logic Journal of the IGPL: Oxford Journals, 2017

2. *Graph Data Mining with Arabesque*. **Eslam Hussein**, Abdurrahman Ghanem, Vinicius Vitor dos Santos Dias, Carlos HC Teixeira, Ghadeer AbuOda, Marco Serafini, Georgos Siganos, Gianmarco De Francisci Morales, Ashraf Aboulnaga and Mohammed Zaki**.** SIGMOD 2017 ***(Honorable Mention)***

3. *Blog Clustering with Committee Approach*. Fatma H. Ismail, **Eslam Hussein**, Aboul Ella Hassanien, Tai-Hoon Kim. Fourth International Conference on Information Science and Industrial Applications (ISI) 2015

4. *A Discrete Bat Algorithm for the Community Detection Problem*. **Eslam Hussein**, Ahmed Ibrahem Hafez, Aboul Ella Hassanien, Aly A Fahmy. International Conference on Hybrid Artificial Intelligence Systems (HAIS2015)

5. *Community Detection Algorithm Based on Artificial Fish Swarm Optimization*. **Eslam Hussein**, Ahmed Ibrahem Hafez, Aboul Ella Hassanien, Aly A Fahmy. IEEE Conf. on Intelligent Systems 2014