625 Bradbury Ave
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# MAI O. SAID

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## PROFESSIONAL EXPERIENCE

**Software Engineer** | **Axxcelera Broadband Wireless Egypt** | **May 2012 – May 2014**

LTE Wireless Broadband Communication System

- Increased system capacity by 60% through implementing a dynamic distributed cooperative interference mitigation algorithm that allocates resources to cells and which copes with load changes in the cell. C, C++
- Implemented algorithms that estimate the quality of the uplink channel for each user successfully and achieved > 90% accuracy, allocating each user the best fit resources through the scheduler. Matlab
- Implemented a compensation algorithm which corrected the timing offset among the users at the base station, leading to achievement of system synchronization. Matlab
- Implemented a test case generation tool which allowed developers to identify the source of error more quickly. Matlab

**Research Assistant** | **Cairo University** | **Apr 2010 – Nov 2010**

Tool for Extensive Management and Performance Optimization (TEMPO)

- Created a prototype for a 3G network optimization tool which diagnosed system problems and provided extensive recommendations on possible solutions by using Bayesian networks

**Software Engineer, Intern** | **Ericsson Egypt** | **May 2009 – Jul 2009**

FTP and File Generator Testing Tool (FFGTT)

- Built a Java/Erlang-based tool for load/stress testing through the creation of dynamic XML test cases using DOM tree; generating and sending docs through the creation of parallel threads. Java, Erlang

## PROJECTS

- Built a face recognition web application with 99.7% accuracy by using deep learning Convolutional Neural Network (ResNet) by utilizing Python, Pytorch, Fastai library, Kaggle dataset and Render platform. **2019**
- Achieved 10x of system synchronization through effective estimation and correction of the timing/frequency offsets in WiMAX wireless system; utilized Least Square Linear Curve Fitting algorithm to estimate the error phase shift for each subframe followed by compensation algorithm (sponsored by Intel). Matlab **2008**

## EDUCATION

**Coursera** | **Stanford University** | **Jun 2019**

- Course in Machine Learning

**Cairo, Egypt** | **Cairo University** | **Jan 2015**

- M.Sc. in Computer and Communications Engineering. GPA: 3.5
- Graduate Coursework: Computer Architecture; Artificial Neural Networks; Pattern Recognition; Real-Time Systems; Computer and Numerical Analysis; Advanced Topics in Mathematics
- *Publication*: M. Said, O. Nasr, T. ElBatt. Cell Outage Compensation Algorithm for Frequency Reuse-one and ICIC LTE Networks. In IEEE Wireless Communications and Networking Conference (WCNC'16), 2016

**Cairo, Egypt** | **Information Technology Institute** | **Jul 2009**

- Diploma in Computer Science with minor in Information Technology
- Graduate Coursework: Database Fundamentals; Networks; Programming Languages; Operating Systems

**Cairo, Egypt** | **Cairo University** | **Jul 2008**

- B.Sc. in Electronics and Communications Engineering
- Undergraduate Coursework: Programming; Data Structures; Mathematics; Communications; Electromagnetic Waves; Circuits; Control; Electronics; Physics

## LANGUAGES AND TECHNOLOGIES

*Proficient*: Java; C; Linux; Git

*Familiar*: Python; C++; Matlab/Octave; Pytorch; Android Studio; JavaScript; HTML/CSS; SQL