Tarek Allam Jr.

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EDUCATION

MSc Computer Science
University College London, University of London, 2014 - 2016

Major Project:
Radio Interferometric Image Reconstruction for the Square Kilometre Array: A Deep Learning Appraoch.

MSci Astrophysics Upper Second Class Honours Masters Degree (2:1)
Royal Holloway, University of London, 2007 - 2011

Major Project: Analysis of Stellar Spectra : Stellar Spectroscopy

TECHNICAL EXPERIENCE

UCL Information Services *November 2015* - present
Student Training Assistant

- To provide teaching support to students and staff participating in I.T training courses given by UCL Information Services. A selection of training courses include Git, LaTeX, Python Programming, R, UNIX, MATLAB, HTML & CSS and SQL.

ATOS International IT Challenge (3rd Place) *October 2014 - June 2015*
Back-End Developer

- To develop an internet connected intercom system in a team of 5. A combination of modern web technologies such as WebRTC and the basic computing hardware of Raspberry Pi's has been used to create a simple and cheap device for the home and business. Development of initialisation programs to configure the system were written in Python and Bash scripts.

UCL E-Learning *October 2014 - Janruary 2015*
Front-End Developer

- To develop a web application using HTML5 Local Storage and JavaScript to allow teachers and other academic staff to mark coursework off-line. This project was conducted as part of an Apps Design Module in a team of 3. Requirements gathering, iterative interaction designs, testing and software design patterns were completed in accordance with a full software engineering process. A prototype version was also created using Java.

MSci Astrophysics Major Project *October 2010 - March 2011*
Department of Physics, Royal Holloway, University of London

- To look at how light from stellar objects can be analysed to deduce certain properties of such objects. In the project a v-VIEW II fibre optic spectrometer with a 12 LX200GPS Meade Schmidt-Cassegrain Telescope was used to observe the spectrum of light from a star and nebula. The data received was then understood by building analytical codes written in Python. Throughout the project libraries such as Numpy, Scipy and Mathplotlib were used as tools to extract data from the images and allow analysis of the data.

Summer Research Internship *July 2010 - August 2010* [6 weeks]
John Adams Institute - JAI
Department of Physics, Royal Holloway, University of London

- To develop visual representations using Python of TM & TE modes that occur within cylindrical accelerator cavities. These were represented in 2-dimensions using Python's Mathplotlib and in 3-dimensions using Python codes embedded in Paraview.

OTHER EMPLOYMENT

Security Associate *December 2011 - December 2013*
Harrods, Knightsbridge
87-135 Brompton Rd, London SW1X 7XL, United Kingdom

Health Club Associate *July 2006 - July 2009*
JW Marriot, Renaissance London Heathrow Hotel
Bath Rd, Hounslow TW6 2AQ, United Kingdom

SKILLS

Computing Experience

Technical Knowledge & Skills: Tools and Technologies

- Confidence with a variety of operating systems including Mac OS X, Linux & Windows.
- Extensive knowledge of UNIX/Linux commands and architecture. (Currently working towards LPIC System Administrator Certification)
- Fluency in Git version control and expert knowledge of Vim and Tmux.
- Knowledge of Parallel Programming technologies such as OpenMP and High-Performance Computing concepts
- Fair experience with Docker and AWS
- Familiar with software development methodologies such as Agile, Scrum, Test-Driven-Development and Extreme Programming. Knowledge of Software Design Patterns.

Programming Languages (In order of experience):
Python (Pandas, Numpy, Scipy, SciKit-Learn, Django) Bash, Octave/MATLAB, Javascript, Java, FORTRAN, C/C++, R, Ruby, SQL, PHP, Haskell, Miranda, MIPS Assemby, Julia, AWK

Documentation & Presentation Skills:
Microsoft Office, LaTeX, Markdown, Sphinx, HTML5 and CSS

Extracurricular Coursers Attended at UCL
Research Computing with C++, Neural Networks & A.I., Introduction to Statistics with R, Research Software Engineering with Python (Online), Software Engineering, Scientific Computing with FORTRAN & Scientific Computing in C (Held at Imperial College London).

In addition to these I am currently working towards completing several open online courseware courses on Coursera and edX in subjects including but not limited to Machine Learning, Data Sciecne, High Performance Computing etc.

Personal

- *Communication* - Excellent interpersonal skills developed through employment at Harrods, Knightsbridge and JW Marriot, Renaissance Hotel, Heathrow. Good ability to explain ideas and concepts clearly both verbally and visually developed from employment with UCL Information Services as well as time spent as a volunteer gymnastics (trampolining) coach.
- *Leadership* - Natural leadership skills developed whilst hosting coaching sessions for local trampolining club. I have also demonstrated key leadership skills as a health club associate where I maintained the responsibility of delegating tasks to the staff. Further leadership skills have been developed whilst training new staff at Harrods.
- *Spoken Languages*

  Mother Tongue: English

  Intermediate Level: Spanish, Portuguese

  GCSE Level: German (A Grade)

REFEREES

References available upon request