## Ammar A Raja

#### IBM Academic Initiative

ammarforuck@gmail.com

## Summary

I am the Disruptive Data Scientist, and believe in using the power of Big Data Analytics to disrupt everything from the Banking sector to the Government. Working predominantly in Cognitive Computing using IBM Watson, have an Academic Membership with IBM, which gives me full access to Watson's Computing capabilities.

I am also working with Microsoft Oxford Project Vision and Speech API's, created a face recognition app with Oxford Face API, and working on integrating it with LUIS (Language Understanding Intelligent Service) to incorporate Sound in API.

Mastered all aspects of data scraping, cleaning, visualizing, and deploying Data products using R Statistical Programming Language. Use the following Data and Web Technologies to take R's computing capabilities tot he next Level: [HTML, XML, JSON] (These are the three predominant formats in which data is available online), [HTTP, HTTPS, SSL(Secure Socket Layer), OAuth, SAML,](Transfer Protocols and Authentication Services), Use Selenium to get data from AJAX enriched pages, [SQL & Relational Databases, NoSQL, MongoDB, HP Vertica,] (For Data Storage and dynamic retrieving), Regular Expression and essential string functions( For Data Cleaning, stringr is quite handy), Representational state transfer (REST) APIs, [ggplot2 in R, IBM Watson Analytics Visualizations, Tableau](For Data Visualizations). I prefer Web Based SAAS(Software as a Service) User Interfaces for all platforms, not a huge face R Shinny apps because of scalability issues.

[R's CARET Package, Tensorflow, Microsoft Distributed Machine Learning Toolkit, IBM Apache System ML] (Machine Learning, Deep Learning), Real Time Streaming Analytics (Apache Storm), Cluster Computing (Apache Spark), Azure & AWS (Cloud Computing), the space ran out.

# Experience

#### IBM Academic Initiative at IBM

January 2016 - Present (1 year 2 months)

Recently been approved for the IBM Academic Initiative. Working with IBM Technologies to create life changing applications, predominantly working with IBM Watson, applying its cognitive powers to many

arenas but predominantly Medicine. Watson has been successfully used in Oncology, but the potential is so much more.

Using the principles used to train Watson to work in Oncology, a full blown Watson Doctor can be created, which I am currently working on. My vision is to create Watson Doctor, and use it to compliment the Medical Profession in the Developing world. Due to dearth of doctors, and sometimes due to scarcity of quality doctors and information, million of people die.

But now with Watson, this can be changed. This is what keeps my busy these days.

#### Data Science Blog Writer at Experfy

May 2016 - Present (10 months)

I have been writing Data Science articles predominantly on LinkedIn, and now on wards I will share my articles on Experfy first, and after that on other media outlets. Here is the link to my profile on Experfy.

https://www.experfy.com/experts/7888-ammar-a-raja

#### Assistant Professor at COMSATS Institute of Information Technology

September 2013 - Present (3 years 6 months)

Assistant Professor of Finance at COMSATS Institute of Information Technology, Islamabad.

#### Assistant Professor at University of AJK

March 2012 - August 2013 (1 year 6 months)

Taught 400 undergraduate students through the following 10 courses: Micro-Econ., Macro-Econ., Econometrics, Financial Econometrics, Finance, Management & Financial markets, Communication, Entrepreneurship & Creativity

Recently 40 students under my supervision completed "A Crash Course on Creativity", and received certificates from Stanford University

Organised 10 workshops on Charisma, Leadership, Creative Writing, Business Communication, and New approaches to mastering English language for optimal performance

Supervised 5 senior year dissertations on: Islamic Banking, Youth & Development, Women & Management, Women Entrepreneurs, & Women & Decision Making

#### Derivative Analyst at Lazard Ltd

January 2010 - January 2011 (1 year 1 month)

Valued options using Black Scholes Model and used research reports for buying and selling

Research included analysis of data from both Chicago Board of Options Exchange (CBOE) and London International Financial Futures and Options Exchange (LIFFE)

#### Certifications

#### **Machine Learning Foundations: A Case Study Approach**

University of Washington License coursera.org/verify/63BAHHUYK66H May 2016

**Data Science in Real Life** 

Johns Hopkins University License coursera.org/verify/PPYHTZSPWU67 May 2016

**Managing Data Analysis** 

Johns Hopkins University License coursera.org/verify/6K6TZB5TD2DT May 2016

**Building a Data Science Team** 

Johns Hopkins University License coursera.org/verify/NMSMH25WD49S May 2016

A Crash Course in Data Science

Johns Hopkins University License coursera.org/verify/ZS9HRT3MAHQ7 May 2016

**Developing Data Products** 

Johns Hopkins University August 2014

**Introduction to Big Data with Apache Spark** 

UC Berkeley June 2015

**Practical Machine Learning** 

Johns Hopkins University September 2014

The Data Scientist's Toolbox

Johns Hopkins University May 2014

**R** Programming

Johns Hopkins University May 2014

**Exploratory Data Analysis** 

Johns Hopkins University June 2014

**Getting and Cleaning Data** 

Johns Hopkins University May 2014

Reproducible Research

Johns Hopkins University June 2014

**Startup Engineering** 

Stanford University August 2013

**Introduction to Mathematical Thinking** 

Stanford University May 2013

**Financial Markets** 

Yale School of Management April 2014

**Economics of Money and Banking** 

Columbia University in the City of New York October 2013

An Introduction to Marketing, Wharton Business School

University of Pennsylvania December 2013

The Challenges of Global Poverty, Massachusetts Institute of Technology

Massachusetts Institute of Technology (MIT) May 2013

#### ER22x: Justice

Harvard University August 2013

#### edX Honor Code Certificate for Understanding the Federal Reserve (FED)

New York Institute of Finance July 2015

Courses

#### **Independent Coursework**

Critical Thinking in Global Challenges From Edinburgh University

Gamification From Wharton Business School

The Modern and the Post Modern From Wesleyan University

A Crash Course in Creativity From Stanford University

ER22x: Justice From Harvard University

Introduction to Mathematical Thinking From Stanford University

14.73x: The Challenges of Global Poverty From Massachusetts Institute of Technology

**Projects** 

#### HALWA PURI AT MY PLACE

May 2013 to Present

Members: Ammar A Raja

My writing portforlio.

#### **Future Kashmir Forum**

March 2012 to Present

Members: Ammar A Raja

Future Kashmir forum is a not for profit organisation with an objective to to initiate a positive wave of progression in the youth of Azad Kashmir, and empower youth by providing the youth a platform to express themselves against the ills of our society, against all the established norms and taboos, and to think about the solutions of our problems ourselves, and then implement those solutions.

### Languages

English (Full professional proficiency)

**Urdu** (Full professional proficiency)

**Arabic** (Elementary proficiency)

**Hindi** (Professional working proficiency)

## Skills & Expertise

**Data Analysis** 

**Analysis** 

Research

**Financial Modeling** 

**Teaching** 

**Econometrics** 

Leadership

**Statistics** 

R

**Ruby on Rails** 

**Python** 

**JavaScript** 

**AngularJS** 

Ember.js

**Bootstrap** 

**Single Page Applications** 

**Representational State Transfer (REST)** 

**Machine Learning** 

**PostgreSQL** 

MongoDB

**IBM Watson Analytics** 

**Version Control Tools** 

Git

**Github** 

Gitbucket

Gitlab

**User Acceptance Testing** 

**RSpec** 

**Unit Testing** 

**Jasmine Framework** 

**Virtual Machines** 

**Microsoft Azure** 

**Amazon EC2** 

Heroku

**Public Speaking** 

**Economics** 

**Finance** 

Game Theory
Entrepreneurship
Gamification
Mathematical Thinking
Statistical Data Analysis
Time Series Analysis
Quantitative Analytics
Hadoop
Apache Spark

#### Education

#### The London School of Economics and Political Science (LSE)

Doctor of Philosophy (PhD), Finance, General, 2009 - 2012

Activities and Societies: Fabian Society

#### **University of Hertfordshire Business School**

Msc Finance & Investment Management, Finance and Financial Management Services, 2008 - 2009

Grade: Upper Second Class

Activities and Societies: Financial Regulation, Finance & Law, Analysis of the Great Recession of 2007,

Financial Institutions in Developing World

Coursera

#### **Interests**

Computational Investing, Kick Boxing, Mountain Biking, Poetry, Documentaries, Tent Pegging

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Contact Ammar A on LinkedIn