# **AWAIS HUSSAIN**

### **EDUCATION**

#### HARVARD UNIVERSITY

Senior - Physics and Philosophy. Graduating May 2015.

#### FOREST SCHOOL

A-Levels: Physics (A\*), Mathematics (A\*), Chemistry (A\*), Philosophy (A) Young Mayor of Newham, Model UN, LSE Finance Summer School '08.

# **WORK**

# SABERR (LONDON-BASED START UP) - DATA SCIENCE INTERN

**JUN 2014 - AUG 2014** 

- Saberr is a start up in London. We analyse teams. We can tell you who the perfect next hire is, and how well they will fit into your existing team.
- I wrote an algorithm to map from individual personality traits (e.g. openness, extraversion) to overall team strengths and weaknesses (e.g. leadership quality, shared mindset etc.).

### TIMESTAMP (ATTEMPTED START UP) - TECHNICAL CO-FOUNDER

JAN 2013 - SEP 2013

- Built an iPhone app that allows users to monitor exactly where they spend their time.
- 2<sup>nd</sup> Place at MIT Techfair Hackathon (Feb '13). TechStars final stage interview. Harvard i-Lab residency program.

#### MUSEY - IOS DEVELOPER

DEC 2013 - JAN 2014

• Front end UI work. I designed and implemented a new login screen for Musey.

### LABORATORY FOR PARTICLE PHYSICS AND COSMOLOGY - RESEARCH ASSISTANT

2012 - 2013

- Working on CERN ATLAS experiment.
- Produced a paper detailing our testing of new type of gaseous detector (MicroMEGA).
- Programming in C++ and Fortran in CERN development environment.

# HARVARD LAW SCHOOL - PRESIDENTIAL INSTRUCTIONAL TECHNOLOGY FELLOW

2011 - 2012

- Architected and built VBA application for Prof. Robert Bordone. Application allows 22 teams to participate in a 15-round computer aided negotiation exercise.
- Redesigned a client website to include forum, blog and social capabilities.

# METASWITCH DATA CONNECTION LTD - SOFTWARE ENGINEERING INTERN

2010 - 2011

- Programming in low-level C-code.
- Built improvements to the company's Session Border Controller (SBC) product code that mediates the interaction between two computer networks.

# **EXTRACURRICULAR ACTIVITES**

- 2013 S HARVARD BILLIARDS CLUB President
- 2012 F SPEAK OUT LOUD POETRY GROUP Co-President
- 2012 S HARVARD BOXING CLUB Member since freshman year. Fought in April '12
- 2012 S THE HARVARD CRIMSON Contributing Writer
- 2011 F HARVARD VARSITY CREW Walk On, Raced in Foot of the Charles Nov '11

### **SKILLS AND INTERESTS**

Quantified Self – For 18 months I wrote down everything I did. Now working on a way to passively track time. Experience programming in C, Objective C (iOS), Python(pandas) and R.

Proficient in Adobe Photoshop. Avid pool/snooker player (placed 5th in a national billards competition). Interested in Art / Graphic Design. Have a portfolio of work and have taken several studio art classes.

# **QUANTIFIED SELF AS ART**

1 PM	Lunch : My Ngoc	Library books To MIT STS 440 : Reading	Lunch : Flyby Phys 123 : Reading Physics 123	Rover Lunch : Ellot	Physics 123 : Reading Physics 123	Pool : Meeting	In the room
2 PIVI	Travel	Self as Data E51-191		To iLab : From Eliot Math 122 : Pset : 5		Pool : Eliot grille : Dhruv, Tommy	Phys 123 : Reading
3 PM	Phys 123 : PSet : 4			Meeting : Abby Fitchner		In the room	
4 PM				Meeting : Audrey		Nap Signet : Induction Poem	To Class Physics Review Session
5 PM		To Eliot		Skype : Home		Signet : induction Poem	Physics neview session
6 PM	To Eliot Dinner : Eliot	Dinner : Eliot	To Eliot : From class Dinner : Eliot	Math 122 : Pset : 5 To Ellot : From iLab	To Eliot Dinner : Eliot	Dinner : Eliot	To Eliot Dinner : Eliot
7 PM		SOL Board Meeting	In the room : Fighting	Dinner : Eliot			V

On January 23rd 2013 I decided to take on a project which has since become the main focus of my life. Last spring I dedicated close to 22 hours a week to this project, and over the summer I spent 36% of my waking hours working on it.

I am speaking about the idea of a 'Quantified Self'—the notion that we can use rigourous data collection combined with scientific analysis to arrive at an enlightened understanding of how the 'self' operates. Different people engage in this process in different ways; some use pedometers to track activity, others use heart rate monitors, location sensors, saliva samples, genomic testing, diaries and journals, Facebook posts, foursquare check-ins, and tweets. I have been meticulously tracking exactly where I have spent my time for the past two years.

The purpose of self quantification is very simple. It is a quest to break free from the divinely imposed limits of physicality that are placed on our bodies and minds. The contradiction that arises when we are forced to assign value to our fundamentally feeble physical bodies. Our eyes are trapped between 400-700nm wavelength light, our skin is safe only in the tens of degrees centigrade, our ears collapse when we raise the amplitude, and our movement was once limited to at most a few metres per second. Physics is aesthetically beautiful precisely because it challenges us to go beyond ourselves—to consider side-by-side both the gargantuan and the miniscule. Coming to terms with our own physicality is what Nietzsche was doing in his quest for the Uberman, it is the ultimate conclusion of Kant's investigation into the world "as it is". The genius of human evolution has been in its use of tools to go beyond what the bones and sinews of the human carcass can do alone. We use knives because we don't have any sharp metal body parts. We ride bicycles so we can travel faster than we can run. We engineer cranes because we can't lift things hundreds of feet into in the air unassisted. We track time because our memories are not quite as precise as we would like them to be.

David Hume taught us that when you throw a pair dice you cannot know how they will land. Unless of course you combine a robust physical model with the precise velocity, trajectory and angular momentum of the die as it left your hand. He showed us that the assumed "randomness" in the throw of dice, is actually just a feature of information scarcity. I wonder therefore, if people are like dice. We seem to be able to 'decide' how hard to work, how focused to be, how passionate, involved and invested we are in our lives, but perhaps there is a hidden hand at play that's actually causing us to land as we do. Perhaps we are far more influenced by our surroundings than we allow ourselves to believe, and a robust, scientific data collecting process would make this immediately clear to us. We would be less in the dark about what it takes to live truly fulfilled, happy lives. We would stop worshipping sun gods, stop performing rain dances, and stop butchering our bodies and souls in sacrifice to the Gods of success. Instead, we would have a rigourous understanding of how to shape our lives. To me this is powerful. To call myself an artist seems presumptuous. I draw, I paint, I occasionally sculpt, and I perform poetry—these are traditionally considered 'art forms'. However the more I ponder, the more I find myself subscribing to the Nietzchean proclamation that existence itself is justified as a purely aesthetic phenomenon. That the act of living is a work of art. Every decision made is a pencil mark, a smudge, a dab of colour on canvas.

In a sense, I see the quantified self movement as an investigation into the art of living. A hark back to the Platonic question of how one should go about living the perfect life. In this instance however, we are not restricted to the oratory tools of philosophy but can call to our assistance the vast quantitative arsenal that physics and the mathematical sciences have been built upon. It is unclear whether this 'experiment' will prove to be fruitious, but at this point I am willing to sacrifice of myself to find out.