

Jacob Essex

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Education

Edinburgh University - BSc Computer Science

2010 – June 2014

Predicted First Class Honours – Current average is 83%, in the top 6 in my year

Awards:

- Annual scholarship from KAL awarded based on achievement during first semester
- Netcraft sponsored prize for being in the top six in the penultimate year
- Google sponsored prize for top marks in the Computer Science Large Practical which involved writing a stochastic chemical simulation program in Objective C
- Google sponsored prize for 2nd placed team in a large group project, building and programming a Lego robot to play football. Given the wide range of abilities often I ended up trying to break down tasks to help other people do the work as opposed to directly doing the work myself

My final year dissertation is a self proposed project on machine learning looking at duplicate entity detection from a set of unstructured product item names. This involves feature extraction to convert the names into fields and then record linkage to detect duplicate items. The result is intended to be used in some personal projects.

A Levels

2010

Maths (A), Further Maths (A*), Computing (B)

Relevant Work and Voluntary Experience

FreeAgent – Software Engineering Intern

Summer 2013

A 3 month internship working on small business accounting web application using Ruby on Rails.

- Integrated Stripe (an online payment processor) into the application to allow customers to pay invoices using Stripe
- Rebuilt and improved a Time Tracking feature using a service orientated architecture to attempt to decouple Active Record from the rest of the application
- Worked with designers to ensure that the application was polished and provided a good user experience

Skyscanner – Software Engineering Intern

Summer 2012

Invited back for a second 3 month internship at Skyscanner, this time working as part of a 10 strong development team on a C# application that holds about 200 million flight prices and provides a backend for a faceted search engine.

- Wrote a performance measuring tool that influenced the development team to be more driven by the real world usage of the application
- Worked on profiling and optimization of the application and investigating and fixing data consistency issues
- Used technologies such as RabbitMQ, Thrift, Solr and MSSQL when updating services that the main application relied on
- Used development methodologies such as test driven development and continuous integration

Skyscanner - Data Acquisition Intern

Summer 2011

3 month summer internship at Skyscanner

- Together with another intern, I moved the webscraper dispatch architecture from a threaded system to use the multiprocessing module including dealing with bugs in Python's garbage collection and multiprocessing module
- Part of a team of five interns that improved coverage of airlines available on Skyscanner's site by 20%, writing webscrapers and using MSSQL

Volunteer Contributor to software related projects

2007 - 2012

Worked collaboratively as part of virtual teams, including

- Co-writing a large update to a major guide for a game scripting language
- Helping security testing a computer game related site for attack vectors such as XSS

Major projects include

- TES Search – an online search engine for computer game modifications written in PHP using the Zend Framework, PostgreSQL and the Sphinx full text search engine
- Contributing terrain rendering to the OpenMW project, a game engine remake written in C++ with a remote team of about 10 active developers

Edinburgh University Computer Society – Vice President + Treasurer

2011 - 2012

Elected Vice President. Responsibilities included:

- Organising, publicising and running events such as the monthly Student TechMeetup which required me to entice representatives from industry to give talks, gave students the chance to network and gain an insight into the computing industry and regularly attracted an audience of 60 – 120
- Part of a small team which developed and publicised Python software to enable students to provide peer learning support to each other. This initiative was part of a Bloomberg-funded programme to improve CompSoc

After stepping down from the Vice President position I was elected as interim Treasurer

- Responsible for organisation and keeping track of CompSoc finances as well as one-off tasks such as invoicing sponsors
- Continuing to run events such as book sales and inter-year meetups where students can discuss what courses are good with students in the year above

Edinburgh University – Haskell Lab Demonstrator

September – December 2013

Part time job assisting first year students with Haskell in the the university labs. I need to be able to quickly evaluate a students problem and succinctly help them solve it without spending too much time with any one student.

Personal Interests

- Regularly mountain bike with the Edinburgh University Cycling Club and assist the club by driving vans on club trips
- Regularly attend Edinburgh's technology events such as the monthly TechMeetup and mentor at events helping children learn to program
- Qualified dinghy instructor – taught children and adults to sail, including teenagers from Chernobyl with no common language

References

References are available on request