

Callum Guthrie | Curriculum Vitae

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Academic Qualifications

Heriot Watt University

BSc (Hons) Computer Science, Predicted 2:1

Edinburgh

August 2012 – June 2016

Braes High School

Scottish Highers

Falkirk

August 2004 – June 2010

4 passes : English, Mathematics and Modern Studies at grade B and Physical Education at grade C

Applicable Experience

Dissertation Thesis.....

A Comparison of NoSQL and Indexing Solutions for Big Data

Abstract

May 2016

- Implement and analyse several versions of prototype applications with each version employing a different technology.
 - Technologies used : *Cassandra, Elastic Search, GraphDB, MongoDB, MySQL* and *Neo4j*
- Compare and contrast the functionality, performance and analytical capabilities of the different solutions.
- Using a real world dataset from the biological environment and following an Extract Transform Load methodology on multiple data sources.

Work Experience.....

TVSquared

Client Services Data Analyst

Edinburgh

May 2015– Present

- Manipulating, cleansing and processing data using *Excel, MongoDB* and *PostgreSQL*.
- Responsible for loading, extracting and validation of client data.
- Analysing raw data, drawing conclusions and developing recommendations
- Data entry, data auditing, creating data reports and monitoring all data for accuracy.
- Troubleshoot with clients from around the world.
- Supplying qualitative and quantitative data to colleagues and clients.

Children 1ST

Corporate Database Project Volunteer

Edinburgh

February 2015 – June 2015

- Extensive use of the fundraising database tool *Raiser's Edge (Blackbaud, Inc.)*
- Ensure that the corporate fundraising team has all database records up to date and amend any records where changes have occurred.
- Advising on the suitability of methodologies and suggesting improvements.
- Work on the database project so that historical records are correct and in-line with database protocols.

Marks and Spencer

Customer Assistant

Livingston

October 2011 – July 2015

- Responsible for maintaining a database which correlates information concerning the company's energy saving strategy.
- Retrieve information regarding the store's energy saving performance and update the database accordingly.

Technical Abilities

Java and Python

- Experience in using advanced trees, string processing, graphs and hash tables using a variety of libraries.
- Designed several programs in *Java* such as aeroplane route planners, compilers and data dictionaries.
- Implemented several search algorithms such as depth first search, breadth first search, uniform cost search and A* search using *Python*.

MySQL and PostgreSQL

- Created and maintained several *MySQL* databases including designing a database structure as a relational data model for a tour guide company.
- Implemented and maintained the backend database using *PostgreSQL* for a wealth management application for financial advisers to control their clients stocks and shares.

HTML5, CSS3 and JavaScript

- Constructed a variety of data visualisations such as choropleth maps, tree maps and waterfall charts, using *D3* and the *Google API*.
- Co-founder of a web development company *Techni-Cals* alongside one of my fellow computer science students. We have designed a variety of web pages including static, dynamic and e-commerce.

Significant Achievements

TVSquared

- Started as a summer intern in May 2015, and was then offered a permanent contract in September 2015 to work on a part time basis, coinciding with studies.

Marks and Spencer

- Voted employee of the month on four occasions for providing excellent customer service and going above and beyond the expectations of the job role.
- Elected member of the Big Involvement Group (BIG). BIG plays a major part in ensuring everyone counts, providing good conditions for work and consulting employees about matters which affect them.
- Appointed Plan A champion for the store. Plan A is a green strategy with emphasis on cutting waste, saving energy, trading fairly and promoting animal welfare.

Scott Logic Best Group Prize

- Awarded the prize for producing the best overall year long university software engineering project.
- Part of a team which developed a wealth management application for financial advisers to control their clients stocks and shares.
- Worked as the group liaison and software engineer implementing the backend database in *PostgreSQL* and frontend using *Ruby on Rails*.

Silver Duke of Edinburgh Award

- Effective communication was essential in order to succeed in achieving the award.
- Completed a challenging walking expedition where, at times, I had to fulfil both a leadership and team playing role.

Hobbies and Interests

- Played football competitively from a young age and was captain of my team throughout my playing career.
- Undertook a coaching role for my team in 2009. I lead team training sessions and took control of several matches.
- I enjoy listening to music, going to the gym to keep fit and meeting up with friends.