# Joe Frew

## **Current Occupation**

Studying enthusiastically for a BSc in Computing Science at the University of Glasgow. A committee member in the Glasgow University Tech Society (GUTS).

## **Contact Details**

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## Qualifications

Advanced Higher A, B

A in Physics, B in Mathematics.

Higher 6 A's

In Physics, Mathematics, Chemistry, Computing, English, Music.

Other Accreditations

Won 1st year Python programming project competition (with "GraPy". Info in Projects section)

Placed Second in challenge in GUTS 2013 hackathon for SAS's big data themed challenge.

Placed Third in challenge in GUTS 2014 hackathon for SAS's search themed challenge.

Won Scottish VEX robotics championship, Quarter Finalist in national competition.

Selected out of >1000 applicants students to attend Scottish Space School 2012.

## **Skills**

Programming Java and Python. Experience using Django, Bash/Linux, Git and Amazon's EC2.

Photoshop Proficient in image manipulation, and creating mockups of user interfaces and webpages.

**Driving** Full driving license with no driving violations.

## **Hobbies**

**Piano** Had piano lessons for 5 years, playing both classical and improvising to popular songs.

Guitar & Taught myself guitar, and play it regularly. I have recorded some guitar and harmonica covers

**Harmonica** one of which is on sound cloud.

## **Projects**

**GraPy** - A simple interactive force directed graph library for Python. (Winner of 1st year programming competition).

www.github.com/RetroMelon/GraPy/ - Complete description and source code.

Raspberry Pi Robot - A browser controlled robot with live video feed and speech synthesis. Based on node.js.

www.youtube.com/watch?v=F3hmwtnsWZA - Informational video (2:50 minutes).

## **Employment**

#### **Computer Technician and Sales Assistant**

Utopia Computers Ltd. - www.UtopiaComputers.co.uk

July 2011 – September 2013

Utopia Computers has been an award winning computer retail and repair store for the last 6 consecutive years. Having been offered the job after a week of work experience with the company, my responsibilities involved:

- Working in a team of (approx. 4) computer technicians, each responsible for the timely completion of multiple computer repairs and data backups at any one time.
- The sale of laptops, components, and custom PC's to the public. I used judgement and knowledge of current hardware to suit custom systems to customers' needs.
- The provision of technical support to customers both in store and via phone.

I feel that my time at Utopia vastly improved my communication, teamwork and time management skills. It also made me highly competent in diagnosing problems with computer software and hardware in a systematic manner.

## **Relevant Experience**

#### Team Leader (and Scottish Champions) in VEX Robotics Competition Final 2013

During 6<sup>th</sup> year at Grange Academy – <u>www.vexrobotics.com/vex/competition/vex-robotics-competition/</u> September 2012 –May 2013

I was selected by members of staff at Grange Academy to enter the VEX robotics competition with a team of 5 other students of my choosing. As team leader I was required to delegate roles within the team and mediate conversation during brainstorming sessions. I was also tasked with programming the robot (in a custom dialect of C) for both the autonomous and user control phases.

We placed 1st in the Scottish contest, and organised a trip to London, making it to the quarter finals in the national competition.

#### Team Leader in 2014 Hackathon Hosted by GUTS (Glasgow Uni. Tech Soc.)

GUTechSoc (Hosted by University of Glasgow) - www.gutechsoc.com/hackathon

For 3 days in October 2014

Led a team of five 2<sup>nd</sup> years on a search/visualisation related task. I designed the overall architecture of the software, integrated the elastic search, django and front-end components on an Amazon Elastic Compute server, and wrote the front-end google maps based UI. Our team placed 3<sup>rd</sup> for our challenge.

Leading a team of my peers vastly improved my project organisation skills and my understanding of how a team communicates when working on a multi-faceted project such as web development.

## Placed 2nd in 2013 Hackathon Hosted by GUTS (Glasgow Uni. Tech Society)

GUTechSoc (Hosted by University of Glasgow) – www.gutechsoc.com/hackathon

For 3 days in November 2013

Worked in a team with five 2<sup>nd</sup> and 3<sup>rd</sup> years on a task themed around big data proposed by SAS. I proposed, designed and coded the data structure and algorithm in C++ to model the data (similar to social network data) in memory. As the dataset size and processing requirements exceeded the resources we had available, we chose to use Amazon's Elastic Compute Cloud service for analysis of the dataset. Our team placed 2<sup>nd</sup> for our challenge.

#### References

**Craig Hume** – *Director, Utopia Computers Ltd* 29-31 High Glencairn St, Kilmarnock, KA1 4AE

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