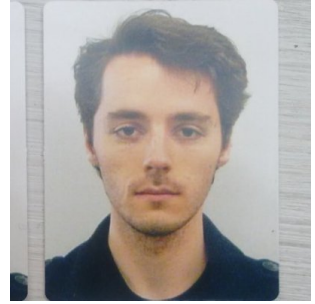# Brandon Walsh

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Github: github.com/metasophiea

Fourth year Electronic & Computer Engineering Student currently performing at a 2.1 level, avid programmer and designer, diligent and conscientious, has high personal standards and attention to detail, coordinated, creative, a good communicator that works well with others.

Language skills: C/C++, JavaScript, HTML, VHDL, Java, Assembly

Experience

Alexion Pharmaceuticals – IT Intern

College Business & Technology Park, Bóthar Bhaile Bhlainséir Thuaidh, Dublin 15   April-September 2016

In my time here, I served the role of IT support Intern; a task that primarily consisted of helping others with technical difficulties with their laptops or related equipment / software. Whether that was setting up a desk for a new starter (complete with docking station, monitor, phone, etc.) installing software or helping people through setting up, or issues encountered with some of the Alexion systems.

Beyond this lead role, I also took up the tasks of general maintenance, performing regular meeting room inspections, or formatting and installing fresh copies of the company's flavour of Windows Professional onto laptops that would be distributed out to users.

Jack Cody's Brewery – Workhand

Drogheda, Co. Louth   Summer 2015

Capped, labeled and boxed the various beverages for distribution.

G4S - Office Assistant/Cash Processer

Rialto, Dublin 8   December 2014 – January 2015

Cash Processing involved handling large cash volumes in the replenishment of ATM cassette strongboxes.

My main duties within the G4S Office were, to create contract schedules for over 1,000 clients. I also assisted in updating their GPS System by providing GPS coordinates for all current business.

Walsh's Shop - Shop Assistant

Knightstown, Co. Kerry   Summer 2014

A seasonal position within own family store. Main duties include stock replenishment, merchandising, pricing and stock rotation.

Projects

metasophiea.com

My home on the web. Hosted on a pages.github.com, this is my main storage/showcase for all my web programming projects, as well as one or two non-programming projects.

Final Year Project - Implementing the Simon Cipher In VHDL

For my final year project, I have been asked to develop an implementation of the SIMON block ciphers in VHDL, and review my design's performance in regards to how fast the system can encrypt information, the hardware costs involved and power consumption. On this git (https://github.com/metasophiea/SIMON_VHDL), you can find all the development work I've done on the system to date, plus some of the reports and documents I've made as part of the project.

In addition to this; as I was researching the cipher I developed a JavaScript version and created an online encoder/decoder tool for encrypting and decrypting messages using the cipher; http://metasophiea.com/apps/encryption/SIMON/translater/. The unencrypted message can be any text, though the encrypted message is hexadecimal as is the password used for encryption. I also had the idea of encoding entire websites using this system. This experiment page demonstrates an encrypted site being downloaded, decrypted and displayed in an iFrame; http://metasophiea.com/apps/encryption/SIMON/siteviewer/

Canvas Viewing Space / Presenter

Over the summer of 2016, while I was employed with Alexion as an intern; one of the end of employment tasks that my college set for me was to make a 5-6 minute presentation on my time there. Before I began at Alexion I had already been experimenting with 2d graphics, and had the idea to create my own presentation software with which to make a presentation.

Although not very featured, this is that program. Its presentation style is akin to Prezi, though with a UI that is border-agnostic.

A little bulky at times, and not super user-friendly, it has all the ability that I need to create my presentation. In future I hope to update it with new objects and editing features.

G4S - Ongoing Music Projects

I've always enjoyed writing and recording music as sort of a hobby project. I've recorded (around) 2.8 hours of music to date, including 2 albums and two album-length pieces, though only the most recent stuff is on my SoundCloud profile.

Nigel

An old assembly language project I started a few years ago but decided to stop when I began learning web programming (as I felt that was a more employable skill)

You can find the (currently undocumented) code here: https://github.com/metasophiea/nigel

Anica

A log of my explorations into designing a computer. I try not to take designs from other places just ideas, and slowly work to put it all together.

Education

B.Eng in Electronic and Computer Engineering

Dublin City University   2013-present

This program - where I have selected the major 'Digital Interaction' - replaces and combines the best of DCU's previous offerings in Electronic Engineering, Digital Media Engineering and Information and Communications Engineering. As well as knowledge of the science and mathematics foundations needed by the electronic and computer engineer; this course develops a wide knowledge in computer systems; from digital & analogue circuitry embedded software and hardware design, to Human Computer Interface Technology, Web Application Development and Image Processing & Analysis

Leaving Certificate

St. Mary's Diocesan School   2007-2013

Front End Development Certification

Free Code Camp   2015

References available upon request