

# **Alex Macpherson**

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#### **EDUCATION**

## **University of Warwick**

Coventry, Warwickshire

Computer Science BSc (1st Class Honours)

September 2014 - July 2017

Thesis: "Development of a social VLE to promote student performance"

- Consistently ranked among top 10 departments in the UK for Computer Science.
- Modules include Machine Learning, Software Engineering & Web Development Technologies.

#### **Seaford College**

Petworth, West Sussex

GCSEs & A-Levels

September 2009 – June 2014

**A-Levels:** Mathematics (**A**), Physics (**A**), Further Mathematics (**B**), Chemistry (**B**), Economics (**A**, AS-Level only). **GCSEs:** 9 A\*s & 2 As, including Mathematics, English, French, Triple-Award Science & Dual-Award ICT.

- Served as school prefect, encouraging student-staff discussions and helping to tutor physics students.
- RAF Head Cadet for the school's Combined Cadet Force, leading and teaching younger cadets.
  - · Graduated the Air Cadet Leadership Course with Merit (July 2012).
  - · Attained Silver Wings classification Gliding Scholarship at RAF Halton (August 2012).

## **EMPLOYMENT**

#### The Frankland Arms

Washington, West Sussex

Waiting & Bar Staff (Full-Time)

June 2016 – September 2016

- Developed client-relation skills through serving and communicating with customers.
- Insight into management of small businesses & importance of flexibility and role diversity within small teams.

#### The White Lion (Chef & Brewer)

Radford Semele, Warwickshire

Team Leader, Bar Staff (Part-Time)

September 2015 – March 2016

- Bar and restaurant management alongside university studies, enforcing 1st class time management.
- Strong propensity to acquire new skills and diversify in any assigned role; promoted to team leader within 4 months.
- Attained understanding of finances, from cashing up and reporting profits/losses, and stock management.

#### **PROJECTS**

#### A Social VLE to Promote Student Performance

Web-Application

**Undergraduate Thesis** 

September 2016 – April 2017

- Solo development of a feature-rich web-based academic companion tool, serving primarily as a student performance tracker to promote achievement and aid parental involvement in schools.
- Developed in Ruby on Rails, using the RubyMine IDE, Git VCS, a Heroku deployment platform & a range of gems.
- Test-driven development ensured a robust system, with user-acceptance tests improving end-user utility.

# Data Cleansing & Pattern Analysis System for Large Datasets

Web-Application

Group Software Development Project

January 2016 - March 2016

- Highly-applicable experience, with random development teams delivering a system to Deutsche Bank (the client).
- Front-end developer for a system capable of identifying clusters and communication patterns within an email corpus of over 500,000 messages, visualising the information in a web-application using **D3.js**.
- An agile development methodology (scrum) was adopted to allow rapid development and testing of new features.
- The developed system was ranked in the top three by Deutsche Bank, notably for the intuitiveness of its UI.

To view the above projects and more, please visit my website.

#### **SKILLS & INTERESTS**

**Technical Knowledge:** HTML5 - JavaScript - jQuery - CoffeeScript - D3.js - HighCharts - Bodymovin.js - CSS - SASS - Bootstrap - Ruby on Rails - SQL - PHP - Java - JUnit - C/C++ - Python - Git - Heroku - Linux - Bash/Shell - MVC Architecture - Agile Methodologies - Scrum - TDD - UX/UI - LaTeX/BibTeX

**Software:** JetBrains IDEs (IntelliJ, RubyMine, PyCharm, CLion) – Adobe CC Suite (Photoshop, Illustrator, Premiere Pro, After Effects, etc.) – Microsoft Office (Word, Excel, Access, etc.) – Unreal Engine 4 – Slack – Trello – Clubhouse.io

**Languages:** English (native fluency) – French (basic)

Interests: Technology - Clean & Intuitive Design - Animation in Film & Art - Video Gaming Culture - Web Design

Additional Information: Full, Clean Driver's License - Social & Approachable Personality