

# BETHANY HAWORTH

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## Selected Relevant Education



### **MPhil Innovation, Strategy and Organisation (Current average 71%)**

University of Cambridge, Judge Business School, Oct 2017 – Jun 2018

- Includes modules in Information Systems, Quantitative Methods and Digital Innovation. Independent research focuses on entrepreneurship, darknet marketplaces and participatory culture.
- I have taken additional classes in programming concepts, computer science fundamentals, Getting Started with ML, Machine Learning with Python, HTML and CSS, with data visualisation (using R) among others to follow later in the year.
- Awarded £500 scholarship from Rochdale Ancient Parish Educational Trust; Winner of Santander Enterprise competition (£100 prize) for my app idea and business plan.



### **Online courses from LSE (University of London)**

- In preparation for Cambridge study, I improved my quantitative skills by completing 2 undergraduate level economics courses in my spare time. Topics covered included game theory, consumer theory and choice under uncertainty. In order to complete these modules, I also developed my calculus and algebra skills through independent study.



### **ACA Certificate Level**

ICAEW, Oct 2015 – Aug 2016 (Part time)

- Covered a wide variety of topics such as modelling discounted cash flow, analysing variances in management information, understanding contract law and calculating companies' tax obligations.



### **MusB (Hons) Music, 1st Class**

University of Manchester, Sep 2012 – Jul 2015

- Assignments included sound design for film and videogames (using Blender) and recording of my own compositions using ProTools.
- Awarded 'Highly Commended' in the international Undergraduate Awards in 2014. Subsequently selected to attend the global summit at Google's offices in Dublin, with funding from my university.

## Selected Professional Experience



### **Graduate Analyst, Financial Advisory**

KPMG LLP, Oct 2015 – Jun 2016

- Conducted financial analysis of management information on behalf of clients.
- Completed Advanced Excel training, and regularly worked with functions and recorded macros to analyse financial data.
- Assisted in attracting new clients by conducting market research and contributing to pitches using tools such as ThomsonONE, FAME, and Factiva.



### **Work experience placement, Information and Archives**

BBC, Mar 2014

- Independently initiated a placement within the Information and Archives team, where I provided archiving support using an in-house data management solution.
- Attended meetings with TV and radio production teams, and observed 'industry standard' processes in a commercial studio.

- Managed social media accounts on behalf of two clients, and drafted press releases for local press.

## Recent Projects

### Tax Calculator in C++

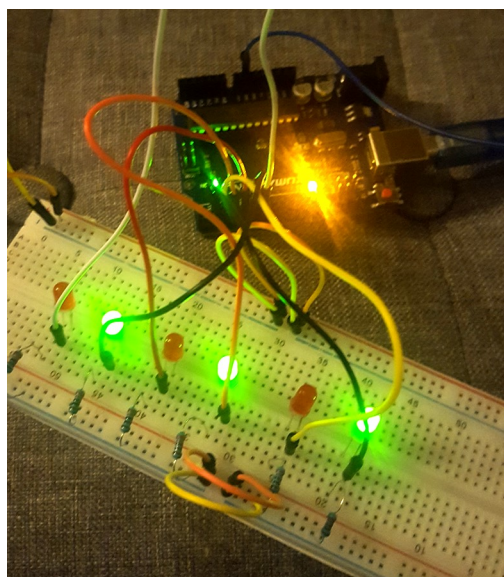
- I recently created a programme that calculates individuals' net salary from their gross input.
- The program outputs also include tax deductions on a monthly and annual basis (including national insurance).
- By referring to *Clean Code* (Martin, 2009), I am currently in the process of refining the project, which is available on GitHub: <https://github.com/BethHaworth/taxcalcs>.

### Arduino Project– Christmas lights

- I am currently working on a variety of mini Arduino projects using C/C++, including programming LEDs to flash in alternating patterns using a loop.

### Audio-Game using Blender

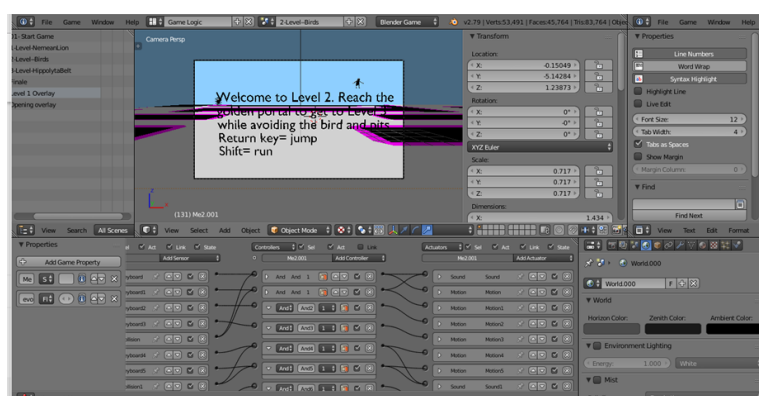
- At university, I designed a multi-level game using Blender based on Greek mythology.
- The game used audio to guide the user through the levels, to collect objects while avoiding obstacles, using open source graphics.



```
christmas_lights

// Christmas lights project
void setup() {
  // initialize digital pins
  pinMode(2, OUTPUT);
  pinMode(3, OUTPUT);
  pinMode(4, OUTPUT);
  pinMode(5, OUTPUT);
  pinMode(6, OUTPUT);
  pinMode(7, OUTPUT);
}

void loop() {
  digitalWrite(2, HIGH); //
  digitalWrite(4, HIGH);
  digitalWrite(6, HIGH);
  delay(200);
  digitalWrite(2, LOW); //
  digitalWrite(4, LOW);
  digitalWrite(6, LOW);
  digitalWrite(3, HIGH); //
  digitalWrite(5, HIGH);
  digitalWrite(7, HIGH);
  delay(200);
  digitalWrite(3, LOW); //
  digitalWrite(5, LOW);
  digitalWrite(7, LOW);
}
```



## Training and Skills

### Data analysis and statistics

- Linear regression using eViews and Gretl, some experience with data visualization software (Tableau).
- Basic use of R and R Studio for data analysis such as plotting and regression.

### Coding

- Use of object-oriented languages such as C++.
- Use of HTML and CSS to create simple websites.

### Methodologies

- Introduced to key methodologies during Cambridge course e.g. Design Thinking, Agile, Lean, Kanban.

### Financial and business software

- Confident using a range of financial software, such as Oracle, SagePay, Xero and transaction processing systems.
- Proficient user of business systems such as Dynamics CRM and SAP, and advanced user of the Office package e.g. VLOOKUPS, pivot tables and recorded macros in Excel; relational databases and queries.

### Languages

- Intermediate Spanish.