

# THOMAS GOODMAN FRSA FBS

PhD Researcher - University of Birmingham

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Birmingham, United Kingdom

## EXPERIENCE

### Freelance Software Developer

**Millennium Point**

06/2017 - 08/2017 Birmingham, UK

<http://www.lincgraph.co/>

I put together and worked with a team on behalf of Millennium Point to design and develop a piece of data visualisation software that connected guests at an event based on their interests.

### Software Developer

**Vanti**

07/2017 - 09/2017 Birmingham, UK

A 3-month placement at Vanti - a company specialising in Audio-Visual integration and smart buildings. Working on mainly the internal services (Java, Docker, NodeJS & Thrift) and with AV equipment/setup.

- Developed three internal projects to help the company - a suite of slack bots, a check-in system and a 'mood service' to keep track of (and feed back) the current mood of the office.
- Worked alongside the team, helping with the Royal Birmingham Conservatoire, a new multi million pound venue space in the heart of the city, with Vanti taking the helm on all AV solutions and installation.

### Analyst/Developer

**Majestic (Majestic SEO)**

12/2016 - 12/2016 Birmingham, UK

Following a successful summer internship, I was contracted by Majestic for a week to further work on a joint metric that I had done some work on over the summer.

- Independently worked to unify SEO metrics to create a single metric that accurately represented the data sets that the company has. This is being used by the internal analytics team to impact almost the entire client-base.
- Presenting the final result to the executive board and ensuring that a full handover of all work was conducted.

### Freelance Network/Encoding Engineer

**ESL UK**

London, UK

I worked with ESL UK on the network/stream aspect of the Clash Royale World Championships at the Copperbox Arena in London.

- Working as part of a team that ensured that a stream was going out in 9 different languages to over 250,000 concurrent viewers.

## EDUCATION



**BSc Computer Science (Hons)**

78% Overall

## PUBLICATIONS

### Real-Time Polyphonic Pitch Detection on Acoustic Musical Signals

**18th IEEE International Symposium on Signal Processing & Information Technology**

Tom Goodman & Ian Batten

12/2018 [tomg.io/isspit-1.pdf](http://tomg.io/isspit-1.pdf)

## ACHIEVEMENTS



### Lead Organiser - HackTheMidlands

I founded, and headed up the organisation of a national, inclusive hackathon ( see [hackthemiclands.com](http://hackthemiclands.com) ). The event has ran for two consecutive years now, attracting around 350 attendees overall.



### CSS UoB President (@CSSBham)

I am the president of the departmental society for computer science at the university, having been elected 3 consecutive years, and have organised in excess of 100 events so far.



### Clarifai Developer Evangelist

I was selected as a Clarifai Champion in Autumn 2016, which is their initiative to shape upcoming developer evangelists.

## EXPERIENCE

### Undergraduate Demonstrator

#### University of Birmingham - School of Computer Science

📅 09/2016 - Ongoing 📍 Birmingham, UK

Following my first year at university, I was selected to be a module demonstrator because of my overall grades.

- I am predominantly responsible for mentoring the Software Workshop (Java) module, which consists of basic Java, as well as more advanced topics such as Threading, Sockets and Generics.
- Other modules include Language and Logic, Introduction to AI, Functional Programming, Data Structures & Algorithms and Robotics.
- Effectively teaching and/or mentoring content to students who are often completely new to the concepts, helping them to understand, and further, to learn them.
- Working alongside other demonstrators to ensure that help is provided quickly and efficiently.

### Software Developer

#### Majestic (Majestic SEO)

📅 07/2016 - 09/2016 📍 Birmingham, UK

🔗 <https://labs.majestic.com/2016>

A 10-week placement at Majestic, developing innovative ways to represent and interpret their data. Mainly working on frontend & UX, but also working on some backend too. Predominantly HTML, CSS & JavaScript.

- Part of an autonomous team, and the joint-architect of a few innovative data visualisations, with the overarching brief of "showcase the data that Majestic has".
- The data visualisations created were used shortly after by the marketing team with the largest clients of the company.

### Project Lead - Ace of Spades

#### JaGeX Games Studio, Cambridge

📅 06/2014 - 09/2014 📍 Cambridge, UK

🔗 <http://aceofspades.com>

I was contracted by JaGeX to work on a past-dormant project - creating, implementing and testing innovative solutions to various problems, as well as managing what to develop and why.

- Major fixes to Ace of Spades, which is written in Python, and is a shooter game with hundreds of thousands of downloads.
- Liaising with a large, old and active game community to ensure that all updates were what the community wanted to see.
- Understanding, documenting, refactoring and working on a legacy code base that had remained practically untouched for over a year.

## REFERENCES

**Steve Pitchford - Development Director, Majestic**

**Jess Rose - Technical Manager at FutureLearn**

## ACHIEVEMENTS



### Hackference 2016 Winner

Support for Amazon's Alexa AI on Pebble devices (see <https://t.co/MKtskw4tYK>).



### Winner - AstonHack 2015

A Java-based app using your Twitter data to display a gamified agar.io-esque data visualisation of Twitter interactions - <https://devpost.com/software/tweet>



### 2nd Place - HackTheHolidays 2015

Web-based app written using JavaScript with Angular that used your recent Tweets to work out your "Festivity Score" - <http://festive.site/>



### BCS National Conference

I gave a 25-minute keynote on "Hackathons - Engaging the next generation of members", resulting in huge interest from many branches and kickstarted an interest in hackathons at the BCS,



### BCS Committee Member

I have been involved in organising talks and events. I am now the Chief Engagement Officer of the BCS Birmingham Branch, which involves outreach and engagement within the local and wider tech community.

## SKILLS

Python

Data Science

Machine Learning

Git

Leadership

Events

Mentoring

C

Java

JavaScript

Signal Processing

Research

Analysis

Algorithms

Technical Writing

Music