

# THOMAS A. GOODMAN

*BSc (Hons) B'ham SFHEA FRSA FBS MBCS MCCT MRI*

## CURRICULUM VITAE

### PERSONAL DATA

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GOOGLE SCHOLAR: <https://scholar.google.com/citations?user=z8m3-FYAAAAJ>  
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### OVERVIEW

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I am an award-winning technologist, educator, and event organiser, working predominantly in research and governance. As a doctoral researcher at the University of Birmingham, my primary focus is on the pitch estimation of acoustic musical signals, but more broadly I am involved in research spanning mathematics, pedagogy, materials science, social policy, and history as well.

Beyond my role as a researcher, I hold a range of voluntary roles - principally in community building, leadership, and governance, and notably as CEO of HackTheMidlands CIC, and a Trustee of the University of Birmingham Guild of Students, and the Burgon Society. Largely due to my voluntary work, I have significant experience sitting on (and contributing to) committees - as a regular member, as secretary, and as chair.

In all of my work I strive to apply evidence-driven practice (as is quite rightly necessary of a scientist). Further, I am a strong believer in social constructivism, and the creation and propagation of knowledge through social interaction. My passion for stimulating this interaction underpins much of my work with communities, and I understand the importance of fuelling connections between others to achieve this.

Further, I am an advocate on issues of equality, diversity, and inclusivity, many of which are especially pertinent to myself, as someone who identifies as LGBTQ+. This, combined with my upbringing in a skilled working class family, and being the first of my immediate family to study at University, is a motivation for my championing of equity over equality in terms of opportunity, and increased social mobility in today's society.

### EXPERIENCE

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*Current*  
MAR 2016

Chief Executive Officer (CEO) and Lead Organiser [*Voluntary*]  
*HackTheMidlands*

In 2016, I founded HackTheMidlands - a 24-hour (and completely free to attend) creative marathon, and the first of its kind to be open to anyone - not just university students. Particularly pertinent for under 18s and those looking to reskill into tech, we have placed an onus on inclusivity and outreach, which is core to our mission. Over the course of the event, attendees learn new skills, work together in teams to conceive and implement innovative projects, and present their final creations to their peers and our sponsors. We provide a unique environment for people to network, acting as an approachable spring-board into the tech scene - particularly for those looking to work in Greater Birmingham. Since 2016, we've ran 5 events, impacting thousands of attendees, as well as a plethora of companies - including BT, TFWM, Bentley, and Majestic. In light of the COVID-19 pandemic, I led the transition to online delivery, engaging over 750 participants globally.

Current JAN 2020	<p>Trustee and Director [Voluntary]  <i>University of Birmingham Guild of Students</i></p> <p>Following my previous work with the Guild, I applied for a position as the postgraduate student trustee. I started in January 2020, following a successful interview with a ten-strong appointments panel. My role includes working specifically with my expertise in technology, education, and community building to effectively scrutinise papers, work with the board to develop long-term strategy, and ensure the stability and prosperity of the organisation. I have a particular interest in work with the bye-laws, and in ensuring that the Guild - particularly in the context of COVID-19 - embraces technology effectively.</p>
Current OCT 2020	<p>Co-Chair [Voluntary]  <i>BCS Birmingham Branch</i></p> <p>I was elected as co-chair of the BCS Birmingham Branch in late 2020, with my focus for the coming years being to improve our offering as a branch - both to the local community through higher-quality events and support, and by enhancing the diversity of our committee and speakers in order to provide more balanced and varied points of view, and visible role-models. Further, I'm working on the retention of young people and graduates in the area - an issue of particular importance with so much of our talent historically opting to move to the capital or abroad.</p>
Current OCT 2020	<p>President [Voluntary]  <i>University of Birmingham Guild of Graduates and Alumni Association</i></p> <p>With the role of alumni associations becoming increasingly blurred in modern times, my key objectives as president of the GGAA are twofold and intertwined - to raise awareness of the association amongst current students, and to provide value to graduates of all ages beyond our traditional offering. Having worked already to improve the diversity of the committee through a number of elections and co-options, I'm now working to better understand what new graduates are looking for post-graduation, and to connect them with the ever-growing alumni community here at Birmingham.</p>
Current NOV 2020	<p>Executive Committee Member [Voluntary]  <i>Future Faces, Greater Birmingham Chamber of Commerce</i></p> <p>I recently joined the executive committee of the Greater Birmingham Chamber of Commerce's Future Faces chamber, which aims to empower and connect young (under 35) talent in the area, and provide support for them through mentoring, professional development opportunities, talks, and other such means. In this role, I'll be providing my experience in tech, community building and governance - broadening the knowledge of the committee. Symbiotic with my work at the BCS Birmingham Branch, I'll also be looking to improve retention of young people in the West Midlands, and empower those from disadvantaged or traditionally underrepresented backgrounds.</p>
Current FEB 2020	<p>Beacon Scheme Fellowship Assessor [Voluntary]  <i>Higher Education Futures Institute (HEFi)</i></p> <p>After successful election to Fellowship of the Higher Education Academy (FHEA) in February 2020, and Senior Fellowship (SFHEA) in July 2020 (likely becoming the youngest recipient ever), I became an assessor for the Beacon Scheme - the University's main accreditation route for academic and support staff. I work with members of the Higher Education Futures Institute (HEFi) to scrutinise and assess applications - ensuring that they demonstrate scholarship, experience, and importantly a commitment to the United Kingdom Professional Standards Framework (UKPSF).</p>
Current APR 2019	<p>Trustee [Voluntary]  <i>The Burgon Society</i></p> <p>Having been elected a Fellow (FBS) for my paper "The Academic Dress of the University of Birmingham", I was invited (and elected) to join the executive committee as a trustee of the society. Along with the duties typical to all charity trustees, I provide specific technological insight, and notably helped to transition to a new website, with the previous one having been outdated for years.</p>

Current SEP 2020	<p>Vice-Chair of Governors [Voluntary] <i>Langley Primary School, Solihull</i></p> <p>As vice-chair of the governing body, I have taken on a number of additional responsibilities beyond my work as the STEM-link governor. This role has required me to work more closely with the Chair in order to ensure effective governance of the school, as well as sitting on the pay committee in the Chair's stead. I plan to undertake additional training from DfE in the near future in order to enhance my skills in the role such that I can better support the chair, and the rest of the governors in their work.</p>
Current DEC 2019	<p>Governor (STEM Link) [Voluntary] <i>Langley Primary School, Solihull</i></p> <p>As a governor of Langley Primary School, I serve as the "STEM Link" for the governing board - providing my specific expertise and knowledge in STEM. In doing so, I help to improve the STEM education of our pupils, and additionally use my analytical skills to prepare detailed reports and recommendations based on parent feedback (i.e. through questionnaires etc.) to further improve the School as a whole. In addition, I am helping to guide the School through the COVID-19 crisis, and am particularly keen to ensure that our pupils (notably those already in disadvantaged circumstances) are impacted by it as little as possible.</p>
Current JAN 2020	<p>Researcher <i>The Common Room Project</i></p> <p>Originally intended to look into technological solutions to encourage students participating in Higher Education through part-time or distance learning, the Common Room is an Educational Enhancement Fund (EEF)-funded project at the University of Birmingham. Having witnessed the impact of the March lockdown on the research community at the University, and with poor research culture being a common theme in the PRES 2019 results, I took the initiative to architect a Discord community - allowing us to emulate our physical community digitally. This allowed us to provide vital support for our researchers almost immediately, and offered some continuity for events and initiatives. We now plan to utilise this for all students going forwards - even to augment our offerings and community post-COVID.</p>
Aug 2020 AUG 2019	<p>Westmere Scholar <i>University Graduate School, University of Birmingham</i></p> <p>I was appointed as one of the Westmere scholars in 2019/20, largely in light of my community work and experience coordinating and running events. My main responsibilities in the role were to work with the other Scholars to build, and bolster, the postgraduate researcher (PGR) community at the University, and put on a variety of events to facilitate this. These included the 'Westmere Series' - a set of talks and workshops designed to equip PGRs with important skills in publishing, confidence, and research more broadly. In spite of the plethora of UCU strikes and the COVID-19 crisis, we still managed to fulfil our roles effectively, and I was able to guide the team towards online/digital delivery as the lockdown began in March 2020.</p>
Current JAN 2020	<p>Board Member [Voluntary] <i>Brum.AI</i></p> <p>I was invited to join the Brum.AI board to provide my expertise both as an AI researcher, but also in governance and management of organisations - particularly in technology. Though partially on hold as a result of the COVID-19 situation, I will be working with the board in the future to put on AI-focused talks and workshops for over 1100 members across the Greater Birmingham area. In addition, I will be working with the board to form partnerships with other organisations and initiatives in the tech scene - encouraging collaboration and growing the community to ensure that it doesn't silo.</p>
Current JUN 2020	<p>Organiser [Voluntary] <i>"STEM, LGBTQ, and You" Conference</i></p> <p>I recently joined the organising team for the "STEM, LGBTQ, and You" conference - ran by oSTEM - which will be running in February 2021 for its 3rd iteration. I'm offering my organisational and technological experience to ensure that the event is able to run effectively irrespective of external factors, as well as working to raise sponsorship from companies to go towards the event.</p>

Aug 2020 APR 2020	<p>Lead Organiser [Voluntary] <i>LOCKDONE-athon</i></p> <p>In the wake of the lockdown in response to COVID-19, I pioneered a creative marathon as part of the University's "Learning Online, Courses, Development Opportunities, Networking, and Entertainment" (LOCKDONE) initiative to engage students over the summer period, and ensure that they were less impacted by the situation. Participants built projects towards the six aims of the philanthropic Birmingham in Action campaign.</p>
Apr 2020 MAR 2020	<p>Science Lead and Organiser [Voluntary] <i>HackQuarantine</i></p> <p>In the immediate aftermath of the March lockdown, a group of hackathon organisers teamed up to build an event focused on investigating and solving COVID-related issues. Garnering over 3500 participants from across the world in just a few weeks, we got them working over a 3-week creative marathon with four key themes: supporting those quarantined or at risk; tech and health; remote working; and improving awareness and behaviour (amongst the general public). Specifically, my role was to provide attendees with scientific guidance and resources, and build a team to enable those from all walks of life to get involved - particularly non-technologists, with a focus on those situated elsewhere in STEMM.</p>
Current APR 2019	<p>Secretary [Voluntary] <i>Computer Science Society, University of Birmingham</i></p> <p>I am serving my second consecutive term as secretary of the University's Computer Science Society (CSS). In my role, I provide advice and organisational structure to enable the society to put on hundreds of events each year for our members. In addition, I coordinate the Society's in-kind sponsorship and partnership of local events, and other work in the wider tech community - extending our impact beyond just the University itself.</p>
Current JUN 2019	<p>Co-Chair and Secretary [Voluntary] <i>College of Engineering and Physical Sciences Community Equality, Diversity, and Inclusivity Committee (EPSCEDI)</i></p> <p>The EPS Community is a 40-strong collection of student-led societies from across the College of Engineering and Physical Sciences. In order to promote EDI issues and share experience, I co-founded the committee alongside the founder and former chair of the oSTEM Birmingham chapter. By cross-promoting EDI initiatives, sharing best practice, and feeding in to the College-level staff discussions, we are able to increase EDI activity from societies, and ensure that approaches that work (and don't work) are disseminated in order to influence future strategy and decision making.</p>
Current JUN 2019	<p>Senate Representative - PGR [Voluntary] <i>University of Birmingham</i></p> <p>As a senator (and voting member) of the University of Birmingham Senate - our principal academic body - I'm elected to scrutinise and suggest amendments to University papers, strategy, and legislation, amongst other items. Unlike my other representative roles in which I more directly represent PGRs, as a member of the Senate I'm required to use my personal expertise on matters, and act in the interest of the University. I've been a vocal member particularly on the subjects of EDI, PGR teaching, and the various issues surrounding the COVID-19 situation, and the University's response to this. This role in particular also requires me to keep up to date with national issues and developments pertaining to the Higher Education sector in order to perform it effectively, and I see this oversight as a critical aspect of my work.</p>
Current OCT 2020	<p>Committee Member [Voluntary] <i>Education Committee, University of Birmingham Guild of Students</i></p> <p>Following the reform of the Guild's democratic structure, the Education committee was formed to handle relevant issues of Guild policy, and consider appropriate student suggestions pertaining to education. In my role as a committee member, I provide expertise from a unique perspective - having been both a student and an educator at the institution. In doing so, I help the committee to make informed decisions about the business that we consider, and enact meaningful change that impacts thousands of students.</p>

Current JUN 2019	<p>College Representative - PGR [Voluntary]  <i>College of Engineering and Physical Sciences, University of Birmingham</i></p> <p>I represent the voice of all PGRs in the College of Engineering and Physical Sciences at the University. As part of this, I sit on a variety of committees including the Graduate Research Board (GRB) - the University-level committee that governs all PGR matters, the College Education Committee (CEC) - where I help to design and scrutinise pedagogic matters pertaining to undergraduate and postgraduate-taught (PGT) students, and the College Quality Assurance and Accreditation Committee (CQAAC). In addition, I sit on the EPS Graduate School board, a subcommittee of GRB in which I have the opportunity to raise and address more EPS-specific matters. Occasionally, I am invited to sit on the Student Representation System Advisory Board (SRSAB), chaired by the University's Director of Student Engagement, in order to provide feedback and strategy from a meta-perspective on the student representation system at the University.</p>
Current OCT 2020	<p>Teaching Rep &amp; Research Rep [Voluntary]  <i>Staff-Research Student Consultative Committee (SRSCC), School of Computer Science, University of Birmingham</i></p> <p>In these roles I represent doctoral students in the School of Computer Science at the School's education and research committees respectively. Beyond attending the committees termly, I help to make decisions about policy and grants, as well as working with research students to understand their needs and concerns in both respects - and feeding back from the committees to the SRSCC. Particularly with respect to education committee, I'm able to leverage my experience as an educator and as an SFHEA to guide decisions jointly from a student and staff perspective.</p>
Oct 2020 SEP 2019	<p>Chair, 2nd Year Rep, &amp; Equality and Diversity Rep [Voluntary]  <i>Staff-Research Student Consultative Committee (SRSCC), School of Computer Science, University of Birmingham</i></p> <p>Following my year serving as the Communications Officer for the SRSCC, I was elected as 2nd year rep (which historically chairs the committee), and E&amp;D Rep. I led the 12-strong committee in delivering events, supporting the various research groups in the Department, and addressing any issues faced by PGRs. In the role, I was notably able to negotiate with the University to double our budget allocation, as well as restarting the annual "Celebration of PhD Theses" events, at which recent doctoral graduates present their work to staff and students alike. I also headed up guidance around the UCU strikes, and helped to create a Discord community for the School following the lockdown in March 2020.</p>
Sep 2019 JUL 2018	<p>Communications Officer [Voluntary]  <i>Staff-Research Student Consultative Committee (SRSCC), School of Computer Science, University of Birmingham</i></p> <p>In my first year as a doctoral researcher, I was appointed as the Communications Officer for the SRSCC. My role predominantly including copywriting, and ensuring that information was disseminated to the committee effectively - including during handover to the incoming committee at the end of my tenure.</p>
Current JUN 2019	<p>E&amp;D Student Lead [Voluntary]  <i>School of Computer Science, University of Birmingham</i></p> <p>Alongside my work as the E&amp;D rep on the SRSCC, I took on the mantle of the E&amp;D Student Lead in the School - representing us at the College E&amp;D committee, working on our AthenaSWAN submissions, and forming a link between the College, the EPSCEDI committee, and the SRSCC amongst others, and learning about and disseminating best practice.</p>
Current SEP 2019	<p>BEAR Champion [Voluntary]  <i>Advanced Research Computing, University of Birmingham</i></p> <p>BEAR is the Birmingham Environment for Advanced Research, which is home to a variety of services, including BlueBEAR - the University's High Performance Cluster (HPC). I was appointed as one of the first BEAR Champions - advocates of these services, and advisors to the Advanced Research Computing team. Beyond the semi-regular meetings that we hold to maintain oversight, I am also working to advise a separate team who are overseeing the organisation of the annual BEAR conference - an academic conference focusing on research that relies on BEAR services and resources.</p>

Current SEP 2019	<b>Campaign Maker</b> <b>University of Birmingham</b> <p>In this role, I work as an ambassador for the University's 'Birmingham in Action' fundraising/volunteering campaign. This includes drumming up support, encouraging people to get involved, and helping out at the various events and launches that the University holds. In such a flexible role, I often have to adapt to different scenarios, and take initiative where needed. It also requires significant communication skills, both within the team in which I work, and outwardly to the wider University body, and to the general public.</p>
Oct 2020 Nov 2019	<b>Secretary [Voluntary]</b> <b>BCS Birmingham Branch</b> <p>I stepped up to the role of Secretary following the resignation of the previous holder. Having sat on the committee for many years now, and served as secretary to a number of other committees, I was both aware of the importance of an effective secretary, and able to apply my skills specifically to the BCS Birmingham Branch. I was responsible predominantly for minuting meetings, and assisting the chair in their duties, which I handled alongside my other roles on the committee.</p>
Current APR 2016	<b>Community Engagement Officer &amp; Inclusion Officer [Voluntary]</b> <b>BCS Birmingham Branch</b> <p>I work with the BCS Birmingham Branch to help engage and support the local tech community. I've helped to bring in speakers for the monthly talks as well as provide monetary aid to local voluntary events, including AstonHack, BrumHack, BullHacks and HackTheMidlands. After the first HackTheMidlands, I was invited to give a keynote at the BCS National Conference in London about the event and hack events in general. This encouraged the BCS to work more to support events across the country. Another part of my role is helping to organise speakers for the monthly branch events that we host.</p>
Current SEP 2019	<b>PGR Rep [Voluntary]</b> <b>Postgraduate and Mature Students Association (PGMSA), University of Birmingham</b> <p>In order to support my work as a Westmere Scholar, I got involved with the PGMSA to improve the community offerings for PGR students, and improve communication between the University Graduate School (UGS) and the Guild of Students, which had been a historical sticking point between the two, and had hindered the dissemination of events throughout the community. I work with the committee to put on a variety of events, and promote them through Westmere in order to better-engage and reach the PGR community.</p>
Apr 2019 MAR 2016	<b>President [Voluntary]</b> <b>Computer Science Society, University of Birmingham</b> <p>I was elected president of the departmental society for computer science for three consecutive years (having only had a small lapse in leadership, whilst I was writing my bachelors thesis). Over my time working with the society, I raised over £40,000 worth of sponsorship for its members, and used this money to reinvest in both them, and initiatives in the local tech community - notably supporting local events through in-kind sponsorship of our state-of-the-art hardware lab that I founded. This allowed us to give opportunities to those in the local and wider communities that they may have otherwise never gotten the chance to have. Moreover, I have organised and ran over 132 events for the society and the community, and won a number of awards for its success.</p>
Current JUL 2019	<b>Committee Member [Voluntary]</b> <b>EPS Graduate School, University of Birmingham</b> <p>I sit as a representative on the EPS Graduate School committee, which oversees hundreds of PGRs in the College of Engineering and Physical Sciences. In this role, I work to address PGR-specific issues, and help others to raise concerns - as well as guiding the College's approach to PGRs, including recruitment, research culture, and the size and shape of our PhD offering.</p>

Current FEB 2019	<p>Organiser [Voluntary]  <i>WhatTheCTF!? Capture the Flag Event</i></p> <p>I was part of AFNOM's (the University of Birmingham's ethical hacking club) organisation of two iterations of a 12-hour Capture the Flag (CTF) event that took place in 2018/2019 for University of Birmingham students. These provided variety of challenges for participants to solve, spanning the breadth of cybersecurity, including cryptography, forensics, steganography, and more. This provided hundreds of students with invaluable skills and piqued an interest in security in many of them.</p>
May 2019 MAR 2016	<p>Organiser [Voluntary]  <i>Women in Technology Conference</i></p> <p>I worked with the Women in Technology Conference (see: <a href="https://wiseatuob.co.uk/women-in-tech/">https://wiseatuob.co.uk/women-in-tech/</a>) from 2016 when the event was in its 2nd iteration. It was a celebration of women working in all fields of STEM, and was co-hosted by CSS, WISE (Women in Science and Engineering), and oSTEM (Out in STEM). We ensure that everyone is welcome at the event, and aim to empower women to aspire to work and strive in the tech industry - even opening up to under 18s to inspire the younger generation to follow in the footsteps of many great women before them, giving them the confidence to pursue their dreams, whatever they may be.</p>
Current OCT 2018	<p>Teaching Fellow  <i>School of Computer Science, University of Birmingham</i></p> <p>Teaching is a core part of my academic identity, and I have historically spent 15 hours per week working on education, including teaching, marking (and feedback), and planning. Despite being a doctoral student, I've had experience teaching a profoundly varied range of subjects, and pride my abilities as a generalist despite the implicit specialisation from a PhD. In no particular order, I've taught 'Reasoning', 'Mobile and Ubiquitous Computing', 'Operating Systems', 'Concepts of Computer Science', 'Software Workshop (Java)', and 'Team Project'. Particularly in Team Project - a module in which teams of five or six 2nd year students build a networked game from scratch over the course of 11 weeks - I've done significant work to reform the course to be less daunting for students, and to encourage a greater sense of collegiality between teams. Notably, I've introduced semi-regular 'game jams' and other support sessions, meaning that students were able to access more regular support from teachers and peers alike, and felt generally less isolated (from other teams) in their work.</p>
Sep 2018 JUL 2018	<p>Project Software Developer &amp; Researcher  <i>Majestic (Majestic.com)</i></p> <p>In the Summer of 2018, I was invited back to work at Majestic, working on researching potential new avenues for the business. Since then, my research has been expanded upon, and pivoted into a commercial product - the Majestic Monitor (<a href="https://majesticmonitor.com/">https://majesticmonitor.com/</a>).</p>
Oct 2019	<p>Panellist [Voluntary]  <i>Alumni Impact Fund, University of Birmingham</i></p> <p>The Alumni Impact Fund is the University's programme for funding student experience enhancing internal projects from charitable donations from generous alumni. In 2019 I sat on the distribution panel for the funds designated for student societies - helping to decide which of a plethora of projects to fund. This was an incredible opportunity not only to serve the community, but to see the amazing work that our students are involved in - including conferences, outreach schemes, and refugee work in the local area.</p>
Mar 2019 MAY 2018	<p>Postgraduate Advisor [Voluntary]  <i>oSTEM, Birmingham Chapter</i></p> <p>oSTEM (Out in STEM) is an American charitable organisation that focuses on LGBTQ+ individuals in STEM, and the profound impact that their identity (and others' perception of their identity) can have on them in their lives, and in their careers. As an openly gay PhD student, and having worked with oSTEM in the past, I was invited to advise the committee (particularly the chair) on various issues that impacted LGBTQ+ postgraduates specifically. I additionally helped to promote collaborations between oSTEM and other societies, and with local initiatives such as DIDFEST - Silicon Canal's Diversity in Digital festival.</p>

May 2019 JUN 2018	Associate (Researcher & Developer) <i>University of Birmingham</i> I worked with researchers from the School of Chemical Engineering at the university to create an interactive interface for them to display their research into the trends of energy usage and CO2 emissions on campus to the public. This is part of the university's efforts to reduce their carbon footprint by 20% by 2020. This work has paved the way for future research and projects since.
May 2019 APR 2017	Events & Ambassador Working Group Lead [Voluntary] <i>Silicon Canal</i> I was the events working group lead, and the ambassadors working group lead for Silicon Canal, a group aiming to create a more cohesive and welcoming tech community in Birmingham. Following my medium post on the state of the Birmingham tech community in April 2017 ( <a href="https://medium.com/@TauOmicronMu/progressing-the-birmingham-tech-community-46d62509969a">https://medium.com/@TauOmicronMu/progressing-the-birmingham-tech-community-46d62509969a</a> ), I was invited to work with Silicon Canal as a thought leader to help steer their thinking and suggest ways of further engaging with the community and breaking down silos between different groups that currently coexist in it. I also did some preliminary work with local companies and vendors to put together an events package to help new events start up and find the necessities such as a venue, catering, and sponsorship both more easily, and at a heavily discounted rate (or free).
Current JUL 2018	Doctoral Researcher <i>University of Birmingham, School of Computer Science</i> I'm working alongside Professor Peter Tino to expand on my work in "Real-Time Polyphonic Pitch Detection on Acoustic Musical Signals" (2018) - devising mathematical (often geometric) models to elicit information from signals that would typically be obscured in traditional notational formats. Importantly, this work sets itself apart from the literature in general by not relying on machine learning techniques, which - whilst relatively effective in practice - provide little to no insight into the underlying mathematical structures.
Current OCT 2018	Student Groups Executive (SGX) [Voluntary] <i>University of Birmingham Guild of Students</i> I am one of five elected Student Groups Executives, and work with the other SGXes and some of the full-time officer team who form the SGX committee to work on recognition/derecognition of student groups, grant approval, amongst other roles. As a part of my role, I have also sat as a judge on two high-profile tribunals to date, and worked to pass unanimous, fair, and reasonable sanctions that fall within the jurisdiction afforded to us by the board of trustees.
Oct 2020 JUN 2019	Vice-President & President-Elect [Voluntary] <i>Guild of Graduates &amp; Alumni Association (GGAA), University of Birmingham</i> I was the Vice-President (and by precedent, President-elect) of the GGAA. Building on my tenure as a committee member, worked to redefine our aims and objectives to better represent the desires on alumni in the community, and coincide less with the work of the University's Development and Alumni Relations Office (DARO). By transitioning towards an approach along the 'digital first' ethos, and reinvesting funds back into current students and the local community, I worked to raise awareness and engagement, particularly amongst more recent graduates of the University.
Jun 2019 SEP 2018	Committee Member [Voluntary] <i>Guild of Graduates &amp; Alumni Association (GGAA), University of Birmingham</i> Following my graduation from the University in June 2018, I ran for election to the GGAA, who work closely with the Development and Alumni Relations Office (DARO) to engage the Alumni of the university in events and initiatives that help them to give back - especially to current students. As well as this, I'm involved in the processions at graduation ceremonies, formally welcoming the new graduates into the alumni community.



Current NOV 2017	<p>Freelance Community Consultant/Developer Evangelist [Voluntary] <i>Various Organisations</i></p> <p>I have done work in the Birmingham tech community as a consultant for companies who want to get more involved, and support the community more. In particular, I was consulted by Colonel Duck Productions, who went on to do work with a number of university societies, and are looking to expand their horizons and do work supporting local events and initiatives in tech in the future. I have also worked with Millennium Point and Innovation Birmingham, amongst others, to better-engage and serve the local community.</p>
Current APR 2017	<p>Organiser and Sponsorship Lead [Voluntary] <i>College of Engineering and Physical Science (EPS) Awards</i></p> <p>I am one of the organisers for the EPS awards, an annual event that takes place to celebrate the work of the 40+ societies within the College at the University of Birmingham, and the incredible work that the students do year in, year out. This involves logistical planning, sponsorship, advertisement, and a plethora of other related roles. In addition, I lead and coordinate the committee in acquiring corporate sponsorship to fund the event.</p>
Current NOV 2017	<p>Freelance Networking/Encoding Engineer <i>ESL UK et al.</i></p> <p>I have experience working as a freelance network/encoding engineer, having worked with ESL UK on the Clash Royale World Championships Finals at the Copperbox Arena at the Queen Elizabeth Olympic park in 2017. My role included initial network and encoding equipment setup, as well as working as part of a team that ensured that the stream was going out in 9 different languages to over 250,000 concurrent viewers.</p>
Oct 2019	<p>League 10 Europe Tournament Manager <i>Riot Games</i></p> <p>As a result of my distinction as a tournament manager at various events, I was invited by Riot Games to work at their exclusive 'League 10' 10th birthday celebrations. This role involved creating and running various tournament brackets for high profile members of the community (including professional players and executive staff), and working to make the event as enjoyable as possible for the distinguished guests that were present.</p>
Current DEC 2016	<p>Freelance Tournament Manager/Admin <i>Multiplay, ESL UK et al.</i></p> <p>I've worked as a tournament manager/admin at a number of professional events and organisations. My experience lies mainly with League of Legends, but I'm able to turn my hand to most tournaments if required. My experience specifically includes the Insomnia Gaming Festival, Quake Champions world semifinals, and Mojang's 'Minecon Earth'.</p>
Mar 2018 SEP 2016	<p>Undergraduate Demonstrator <i>University of Birmingham</i></p> <p>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 &amp; Algorithms and Robotics. This involved teaching and/or mentoring content to students who are often completely new to the concepts, helping them to understand, and further, to learn them. I am also responsible for working alongside other demonstrators to ensure that help is provided quickly and efficiently.</p>
Sep 2016	<p>Clarifai Champion [Voluntary] <i>Clarifai</i></p> <p>I'm one of the second batch of Clarifai champions, which is their initiative to shape upcoming developer evangelists. See more here: <a href="http://blog.clarifai.com/introducing-the-clarifai-champions/.V9v37zW7Dqj">http://blog.clarifai.com/introducing-the-clarifai-champions/.V9v37zW7Dqj</a> and here: <a href="http://blog.clarifai.com/introducing-the-clarifai-champions/.V9v37zW7Dqj">http://blog.clarifai.com/introducing-the-clarifai-champions/.V9v37zW7Dqj</a></p>

Jan 2017	Ambassador/Developer Evangelist [Voluntary] <i>Algolia</i> I was chosen as an ambassador for Algolia (see: <a href="https://www.algolia.com/">https://www.algolia.com/</a> ), and have helped them to engage with and help the local and wider tech community in Birmingham, and the UK as a whole.
Sep 2017 JUL 2017	Software Developer <i>Vanti</i> 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. I 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, and also worked alongside the team on 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.
Aug 2017 JUN 2017	Freelance Software Developer <i>Millennium Point</i> I worked in a team with Millennium Point to design and develop a piece of data visualisation software that connected guests at an event based on their interests. The software was called LINC - more info can be found at: <a href="http://www.lincgraph.co/">http://www.lincgraph.co/</a>
Dec 2016	Developer/Analyst <i>Majestic (Majestic.com)</i> Following successful past work at Majestic, 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. I independently worked to unify SEO metrics to create a single metric that accurately represented the data sets that the company has; devised and documented an efficient method (single mathematical expression) to calculate the shortest distance from an arbitrary point to an arbitrary continuous function; the final metric is to be used to impact almost the entire client-base, and is already being used by the internal analytics team, and presented the final result to the executive board and ensuring that a full handover of all work was conducted.
Sep 2016 JUL 2016	Software Developer <i>Majestic (Majestic.com)</i> A 10-week placement at Majestic, developing innovative ways to represent and interpret their data. Mainly working on frontend & UX, but doing some backend too. Predominantly JavaScript. See: <a href="http://labs.majestic.com/">http://labs.majestic.com/</a>
Sep 2014 JUL 2014	Project Lead <i>JaGeX Games Studio</i> I was contracted by JaGeX to work on a project that had been left dormant for just over a year. My role involved creating, implementing and testing innovative and efficient solutions to many issues within the project itself, and to effectively communicate with my team. This kept the game and its community running for a further year - generating millions of pounds in revenue over that time.
Nov 2015 JUL 2015	Development Team Lead <i>RuneTime</i> I volunteered as the development team leader of a small site. My role involved managing a team of developers to ensure that a high-quality website was created, providing professional guidance to the team members, ensuring that each member performed their duties punctually and to a high standard, and liaising with the owner.
Mar 2016 NOV 2014	Webmaster <i>Stafford Constitutional Club</i> I did some work for the Stafford Constitutional Club maintaining their web domain and website, and ensuring that everything was kept up to date and in order.

## EDUCATION

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CURRENT	Doctor of Philosophy in COMPUTER SCIENCE, <b>University of Birmingham</b> , UK Supervisor: Prof Peter TINO
JULY 2018	Bachelor of Science in COMPUTER SCIENCE, <b>University of Birmingham</b> , UK First-Class with Honours Thesis: "Real-Time Polyphonic Pitch Detection on Acoustic Musical Signals" Supervisor: Dr Ian BATTEN

## PUBLICATIONS

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GOODMAN, VAN GEMST, & TINO, 2020	A Geometric Framework for Pitch Estimation on Acoustic Musical Signals
GOODMAN & RADU, 2020	Learn-Apply-Reinforce/Share Learning: Hackathons and CTFs as General Pedagogic Tools in Higher Education, and Their Applicability to Distance Learning (A Preprint)
GOODMAN, 2019	The Academic Dress of the University of Birmingham
GOODMAN & BATTEN, 2018	Real-Time Polyphonic Pitch Detection on Acoustic Musical Signals, 18 <sup>th</sup> IEEE Symposium on Signal Processing & Information Technology

## STUDENTS

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BRYN LANSDOWN (MSc COMPUTER SCIENCE)	Machine Learning for Music Genre Classification
GREG FIELD (MSc COMPUTER SCIENCE)	Multi-modal Music Classification for Genre Analysis

## SCHOLARSHIPS, AWARDS, AND ACCOLADES

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AUG 2020	Future Face of Innovation and Technology - GBCC Future Faces Awards 2020
JUL 2020	Senior Fellow of the Higher Education Academy (SFHEA)
JUN 2020	The Great Achievement in EPS - EPS Awards 2020
FEB 2020	Member of the Chartered College of Teaching (MCCT)
FEB 2020	Fellow of the Higher Education Academy (FHEA)
NOV 2019	Rising Star in Technology of the Year, Silicon Canal Awards 2019
SEP 2019	Future Face of Innovation and Technology (Finalist) - GBCC Future Faces Awards 2019
JUN 2019	EPS Community Award - EPS Awards 2019
JUN 2019	Great Achievement in EPS Award (shortlisted) - EPS Awards 2019
MAY 2019	Westmere Scholarship - College of Engineering and Physical Sciences
NOV 2018	Member of the British Computer Society (MBCS)
SEP 2018	Fellow of the Burgon Society (FBS)
SEP 2018	Fellow of the Royal Society of Arts (FRSA)
JUL 2018	Member of the Royal Institution (MRi)
JUN 2018	Winner (1st Place) - University of Birmingham BEAR Cluster Challenge 2018
MAY 2018	EPSRC / School of Computer Science PhD Scholarship - University of Birmingham
JUN 2018	Outstanding Event Award (HackTheMidlands) - EPS Awards 2017
JUN 2018	Society of the Year 2017/18 (CSS) - EPS Awards 2017
JUN 2018	Industrial Award (shortlisted) - EPS Awards 2017
JUN 2018	Inspirational Committee Member (shortlisted) - EPS Awards 2017
JUN 2018	Volunteer of the Year (shortlisted) - EPS Awards 2017
JUN 2018	The Great Achievement in EPS Award (shortlisted) - EPS Awards 2017
JAN 2017	Associate Member (AMBCS) - British Computer Society
OCT 2016	Winner - Hackference 2016
FEB 2016	Ramsay Computer Science Bursary - University of Birmingham
DEC 2015	2nd Place - HackTheHolidays - MLH Fall Season 2015
OCT 2015	1st Place - AstonHack - MLH Fall Season 2015

## NEGOTIATED SPONSORSHIPS/PARTNERSHIPS

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As much of my work, and the work that I support, is not-for-profit, it is often a necessity to secure sponsorship (largely from industry) to fund the activity. To this end, I have successfully negotiated a range of sponsorships for numerous events; notably for HackTheMidlands, but also to support a range of other events and initiatives in the region. Not only does this provide the initiatives with vital funding, it also strengthens ties with industry, and stimulates engagement with the companies themselves - boosting the community on the whole.

The total value of the negotiated sponsorships below is **£117,723.38**

### HackTheMidlands

HTM 5.0 Majestic - Gold Sponsorship  
HTM 5.0 Capital One - Gold Sponsorship  
HTM 5.0 BT - Gold Sponsorship  
HTM 5.0 British Computer Society - Gold Sponsorship  
HTM 5.0 Kainos - Silver Sponsorship  
HTM 5.0 Capgemini - Silver Sponsorship  
HTM 5.0 Northrop Grumman - Silver Sponsorship  
HTM 5.0 20i - Silver Sponsorship  
HTM 5.0 Fusion Meetup - Silver Sponsorship  
HTM 5.0 Future Faces (GBCC) - Bronze Sponsorship  
HTM 5.0 Mike Elsmore - Bronze Sponsorship  
HTM 4.0 Majestic - Gold Sponsorship  
HTM 4.0 British Computer Society - Silver Sponsorship  
HTM 4.0 ARM - Silver Sponsorship  
HTM 4.0 Twilio - Silver Sponsorship  
HTM 4.0 CapGemini - Silver Sponsorship  
HTM 4.0 Bentley - Silver Sponsorship  
HTM 4.0 BJSS - Silver Sponsorship  
HTM 4.0 Bought By Many - Silver Sponsorship  
HTM 4.0 Webroot - Silver Sponsorship  
HTM 4.0 Capital One - Silver Sponsorship  
HTM 4.0 Kainos - Bronze Sponsorship  
HTM 4.0 Fusion Meetup - Bronze Sponsorship  
HTM 4.0 Levitation Events - Bronze Sponsorship  
HTM 4.0 University of Birmingham School of Computer Science - Digital Sponsorship  
HTM 4.0 University of Birmingham College of Engineering and Physical Sciences - Digital Sponsorship  
HTM 4.0 Balsamiq - Digital Sponsorship  
HTM 3.0 BT - Silver Sponsorship  
HTM 3.0 Bentley Motors - Bronze Sponsorship  
HTM 3.0 Capgemini - Silver Sponsorship  
HTM 3.0 Robert Walters - Silver Sponsorship  
HTM 3.0 Unity - Silver Sponsorship  
HTM 3.0 Nexmo - Silver Sponsorship  
HTM 3.0 Lloyds Banking Group - Bronze Sponsorship  
HTM 3.0 GitHub - Partnership  
HTM 3.0 Millennium Point - Venue Sponsorship  
HTM 3.0 British Computer Society - Gold Sponsorship  
HTM 3.0 Majestic - Silver Sponsorship  
HTM 3.0 Kainos - Bronze Sponsorship  
HTM 3.0 CSS - Bronze Sponsorship  
HTM 3.0 University of Birmingham School of Computer Science - Digital Sponsorship  
HTM 2.0 Millennium Point - Venue Sponsorship

HTM 2.0 British Computer Society - Gold Sponsorship  
HTM 2.0 Transport for West Midlands/WMCA - Gold Sponsorship  
HTM 2.0 Majestic - Silver Sponsorship  
HTM 2.0 eLife - Silver Sponsorship  
HTM 2.0 Vanti - Silver Sponsorship  
HTM 2.0 Nexmo - Silver Sponsorship  
HTM 2.0 Algolia - Silver Sponsorship  
HTM 2.0 CSS - Bronze Sponsorship  
HTM 2.0 Samsung Internet - Digital Sponsorship  
HTM 2.0 University of Birmingham School of Computer Science - Digital Sponsorship  
HTM 2.0 IBM - Partnership  
HTM 2.0 Discord - Partnership  
HTM 2.0 JetBrains - Partnership  
HTM 2.0 Trello - Partnership  
HTM 2.0 The Medic App - Partnership  
HTM 2.0 Cycle - Partnership  
HTM 1.0 Millennium Point - Venue Sponsorship  
HTM 1.0 BCS - Gold Sponsorship  
HTM 1.0 Majestic - Silver Sponsorship  
HTM 1.0 Codio - Silver Sponsorship  
HTM 1.0 ACSS - Bronze Sponsorship  
HTM 1.0 CSS - Bronze Sponsorship  
HTM 1.0 School of Code - Bronze Sponsorship  
HTM 1.0 Boston Tea Party - Food Sponsorship  
HTM 1.0 BCS (Student Chapter) - Breakfast Sponsorship  
HTM 1.0 University of Birmingham School of Computer Science - Digital Sponsorship  
HTM 1.0 CompTIA - Monetary Partnership  
HTM 1.0 HackCampus - Partnership  
HTM 1.0 Clarifai - Partnership  
HTM 1.0 StickerMule - Partnership  
HTM 1.0 Vanti - Partnership

### **Computer Science Society, University of Birmingham**

2020/21 Kainos - Silver Sponsorship  
2019/20 In-Kind Sponsorship - Hardware Lab @ HackTheMidlands 4.0  
2019/20 Kainos - Silver Sponsorship  
2018/19 Kainos - Ball Sponsorship  
2018/19 Kainos - Silver Sponsorship  
2018/19 Argos - Gold Sponsorship  
2018/19 In-Kind Sponsorship - Hardware Lab @ HackTheMidlands 3.0  
2017/18 EY - Silver Sponsorship  
2017/18 College of Engineering and Physical Sciences - Monetary Award  
2017/18 In-Kind Sponsorship - Hardware Lab @ HackTheMidlands 2.0  
2016/17 In-Kind Sponsorship - Hardware Lab @ HackTheMidlands  
2016/17 In-Kind Sponsorship - Hardware Lab @ BrumHack 6.0  
2016/17 University of Birmingham School of Computer Science - Hardware Lab Grant  
2016/17 Accenture - Silver Sponsorship  
2016/17 Deutsche Bank - Silver Sponsorship

### **BCS Birmingham Branch**

2020/21 AstonHack 6 - Silver Sponsorship  
2016/17 Women in Technology Conference 3.0 - Silver Sponsorship

2016/17 BrumHack 7.0 - Silver Sponsorship  
2016/17 BullHacks 1.0 - Silver Sponsorship

## PUBLIC SPEAKING

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I have a range of public speaking experience, and have delivered talks, workshops, and lectures, in addition to speeches, panel discussions, and a little compèring/hosting.

2020 A Crash Course in Logic - Lecture  
2020 HackTheMidlands 5.0 - Host  
2020 BCS Birmingham Branch AGM Debate - Chair  
2020 CSS Welcome - Speech  
2020 LOCKDONE-athon - Host  
2020 Webinar - Engaging Students Throughout the Semester  
2020 Hackathons4Schools - Panel Discussion  
2020 HackQuarantine - Closing Ceremony  
2020 PGR Funding - Panel Discussion  
2019 We are Birmingham Alumni profile  
2019 HackTheMidlands 4.0 - Host  
2019 School of Computer Science PGR Induction  
2019 EPS PGR Induction  
2019 CSS Welcome Speech  
2019 Celebration of PhD Theses - Host  
2018 HackTheMidlands 3.0 - Host  
2018 CSS Ball - Speech  
2018 CSS EGM - Host  
2018 CSS Welcome Evening - Making the most of your time at university  
2018 School of Computer Science - CSS Freshers' Welcome Speech  
2018 CSS AGM - Speech  
2018 Hack24 3.0 - Presentation  
2017 AstonHack 2017 - Presentation  
2017 GCSE Lesson - Norvig Spellchecker  
2017 VI<sup>th</sup> form Lesson - Computer Science at University  
2017 HackNotts 2017 - Presentation  
2017 Hackference 2017 - Presentation  
2017 CSS EGM - Speech  
2017 HackTheMidlands 2.0 - Host  
2017 School of Computer Science - CSS Freshers' Welcome Speech  
2017 BrumHack 6.0 - Sponsor  
2017 CSS AGM - Speech  
2017 MLH Prime: Europe Regionals - Presentation  
2017 CSS Ball - Speech  
2017 BullHacks 1.0 - Sponsor  
2017 Hack24 2.0 - Presentation  
2017 OxfordHack - Presentation  
2017 HackCambridge - Presentation  
2016 HackTheHolidays 2016 - Presentation  
2016 CSS Christmas Meal 2016 - Speech  
2016 BCS Role-Based Convention Nov. 2016 - Keynote  
2016 AstonHack 2016 -Presentation  
2016 HackNotts 2016 - Presentation  
2016 Women in Technology Conference 2.0 - Host  
2016 BrumHack 5.0 - Presentation  
2016 CSS EGM - Speech

2016 Hackference 2016 - Presentation  
2016 HackTheMidlands - Host  
2016 School of Computer Science - CSS Freshers' Welcome Speech  
2016 CSS AGM - Speech  
2016 BrumHack 4.0 - Presentation  
2016 IC Hack '16 - Presentation  
2015 Peer Mentor for OCaml, University of Birmingham  
2015 HackTheHolidays 2015 - Presentation  
2015 GreatUniHack 2015 - Presentation  
2015 HackNotts 2015 - Presentation  
2015 AstonHack 2015 - Presentation