# Personal Development Plan, September 2014

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# Personal Statement

I was born in Edinburgh, and lived there until I was 19. I completed a degree in music at the University of York, having worked very hard at my performance and improvisation. I suffered a nervous breakdown in 2012 following the death of my grandmother and a lot of anxiety about my future. As a result I moved to Brantham to be supported by my parents, and I have since begun a Software Development Apprenticeship with BT.

I am a creative person: I learnt to play jazz music during my three years at university and I learnt to write music both at school and at university. I have a lot of experience programming computers and creating software, since I have investigated and experimented with computer programs for as long as I can remember. I kept exploring software development throughout my time at university, while striving to become a professional musician. Now I work full time as a software developer, and I play the saxophone as a very rewarding hobby. I have discovered I am quick to learn and very adaptable: I feel my coding style has dramatically improved within the year I have been with BT, in response to working with an encouraging team.

I enjoy my work at BT, and I am working with a team where on-the-job learning is a high priority. I think these two factors are key to the satisfaction I currently get from my job. I am learning to write useful software that is easy to maintain and change. One of my weaknesses is poor time management: when I was studying in York I would work haphazardly and waste my time. During term-time I often swung from overconfidence in my ability to complete a task, to panic as the deadline approached. Having a full time job has structured my time management. Working as part of a small team is very helpful, as other members of the team will correct and coach me when I am over-confident, and rally round when time is short. As a result of these experiences I believe I am someone who feels stronger when working within a reasonably strict timetable.

Outside of work I play music with the Hadleigh Orchestra and sing with the Brantham Choir. At orchestra members can contribute their own compositions, so this is an opportunity to develop my composition skills as well as giving me opportunities to perform. I assist with a youth group at my local church, and there are opportunities here to develop my leadership and coaching skills. Since both my work and my hobbies are indoor activities I would like to develop more habitual exercise to counteract this threat to my long-term health.

When I moved house to study at York I proved to myself I could be independent. However since my nervous breakdown I have moved back in with my parents. While I think this was the natural and correct response, I feel a threat is that I may become too dependent on my parents, who have been very supportive. So I would like to become independent again and move out to somewhere close to my work.

As an apprentice I have many opportunities: for example, I am looking forward to spending four months in BT’s research department. My long-term goal is to contribute to solving a computing problem whose solution will positively affect people’s lives. Ideally I would like to complete a PhD with support from BT, and more generally find an area of software research that I can contribute to.

# Reflective Diary

## Not having a television at home

My family have never had a TV in the house. The households they came from did have TVs, but they made the conscious decision not to include one in the first house they got together. I ended up reading a lot of books when I was young, by such authors as Anthony Horowitz, Brian Jacques and Roald Dahl. Reading lots of books has accentuated my imagination, and this has influenced the kind of work I enjoy. At school I was better at making up new stories than writing from personal experience, and I have written music in one form or another since I learnt to play the saxophone. Writing good computer software also requires a good imagination, because one is more likely to see a more obscure solution. I enjoy these kinds of work because they let me use my imagination, and I first developed my imagination by reading books.

## Learning to play the saxophone

Some of my earliest memories are of playing the saxophone. I work hard, sometimes too hard, and try to move too fast. As a result I am a good sight reader, but I get impatient. For example, I put greater emphasis on my progress through the ABRSM grades than building good habits, and when I got to university I had to unlearn a lot of bad habits.

Preparing for musical performances seems to come naturally to me. However, outside of music I do not prepare well. I was still one of those at university who was up past four on the day of the deadline, and I even handed in a few incomplete submissions. When I started my course at UCS, I made a point of developing this skill, and I have finished each submission with time to spare.

## My first job as a waiter

I really enjoyed my time at the Norton House Hotel. It forced me out of my comfort zone, and I am pleased that I rose to the challenge. I had to talk to new customers every day, and put them at their ease by making the first move. Waiting tables was not something I wanted to do for the rest of my life, but I learnt how to build up my savings, and so the experience was a good start to my working life.

## Not studying Computer Science

I distinctly remember the moment my parents told me we were getting a computer. Computers to me are not tools to get things done, or wastes of time, or computational machines. They are places to explore.

Getting a computer was the beginning of a long investigation I have made into how humans react to and interact with computers. At school I had less interest in studying mathematical formulae and more interest in writing software that is natural for humans to interact with. My aversion to studying algorithms put me off studying computer science at university, and it remains an unexplored area for me. So I would like to develop this weakness rather than avoid it in the future.

## Leaving home to go to University

I was very keen to move away once I had decided to go to university. I wanted to prove I could fend for myself, and I think I wanted a bit more independence as well. I am glad I did, because it has made me more confident in my own independence.

My self-confidence helped me look after myself for the first time, but I feel that it led me to change too many things too quickly: my faith, my home, the distance from my parents and my responsibilities to look after myself and my home. All of these were distractions from completing my degree, and I feel I could have saved myself a lot of pain by taking a more gradual approach. Now I am living with my parents again, I feel there is a lot I can still learn from them about caring for a house and organising time to do chores.

## Hosting friends in York

I quickly made the discovery in school that I am not someone who enjoys drinking parties or going to clubs in city centres. Fortunately at York I made friends with people who held a similar opinion, and we would often take it in turns to host a dinner or games night at our flat. This helped build my social confidence, as I moved from being a fairly detached attender of other people’s parties to an active host. I have learnt to cook from my mother, and I enjoyed organising the food for these events.

## Leaving my job at Gear4music

I started working for Gear4Music in 2011, just after I completed my degree. I was pleased that I had managed to get a job immediately after completing my degree. It was by no means a graduate position, but it was a start, and I really got along with the people there. It is amazing how much having friendly colleagues helps my job satisfaction. I experienced my first promotion, after I wrote some product descriptions for the company website, I was offered the position full time. While I was not able to keep the job during my nervous breakdown, I learnt that adapting to new requirements outside the prescribed job role will often be rewarded.

## My experiences at a call centre in Ipswich

I worked for two months in a call centre in Ipswich. I needed a job to help me recover from my nervous breakdown, and I was carried along in the hype created by the recruitment process, which that led me to believe it would be a worthwhile place to meet similarly aged people, and to help customers over the phone. This reminds me that I am as susceptible to sales pressure as anyone else, but what carried me through was meeting lots of new people, working as part of a larger team where there was a sense of belonging, and solidarity against the harder and more relentless parts of the job.

## Using skills as an amateur or as a profession

I have had the privilege of playing music and writing software both professionally and as an amateur. When I left home for university I was keen to become a professional musician, because I thought being an amateur was somehow worth less than being a professional. I now know this is not true: it is an absurd generalisation. I met musicians who regarded themselves as professionals at university who were not really emotionally invested in their music – it was simply their easiest way to make money. I have met plenty of amateurs who invest less time in their craft and who are not paid, but yet produce amazing music.

# Action Plan

My Action Plan consists of several SMART goals: those that are Specific, Measurable, Achievable, Realistic and Time Bound. My apprenticeship is helping me develop as a professional software developer, and so most of my goals general improvements to my life outside of work. In particular I would like to improve my regular exercise and become more independent.

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|  | Issue | Action | How | By When |
| 1. | Algorithm design is a valuable transferrable skill for a software developer. | Practise algorithm design as a hobby. | Complete 6 online HackerRank Algorithm Design challenges. | January 2015 |
| 2. | I do not build life maintenance like housework or cooking into my day. | Practise cooking with Mum, and help cleaning the house. | Host a family dinner. | April 2015 |
| 3. | I do not get regular exercise. | Take up a hobby that helps me get more active. | Join East Bergholt tennis club. | August 2015 |
| 4. | I do not do much creative work apart from my work for BT. | Compose more music. | Write a short Christmas piece for the Hadleigh Orchestra. | December 2015 |
| 5. | I want to become more independent. | Move out of my parents’ house. | Save £20,000 for a deposit on a house | September 2017 |

# Notes

## Goal 1

I am learning the majority of skills that are valuable to a software developer: test driven development, abstraction, functional programming and object-oriented programming. However the team I am with do not often have to write complex algorithms, and I think this will help my long-term goal of contributing to software research. I can prepare for this by completing the challenges on a website called HackerRank, which presents challenges designed to stretch software engineers.

## Goal 2

As mentioned in my personal statement and in my diary, I have proved to myself that I can be independent in the past. This goal will build my confidence in this area, and help me to decide if I want to move out and start renting, or wait until goal 5 is complete and I can take out a mortgage. I have set a date of April 2015 as my brother will be visiting during this time for his birthday, and my goal is to host his birthday dinner.

## Goal 3

My hobbies and my work both involve indoor activities. At work we have introduced standing desks, which help to improve my posture while at work. BT also has a gym at Adastral Park but I have never seen myself fitting in there. My objective is to take up tennis again, a sport I used to play in high school. I have chosen a date towards the end of next summer, as I think taking up an outdoor sport will be easier in warmer weather.

## Goal 4

Looking at my diary entries has made me realise how important being creative is to me. I have found creative outlets in both music and software, and while my job is in software I hope I will be able to continue to write music. My goal is to write a composition for the Hadleigh Orchestra’s Christmas concert. I have given myself over a year so that I have plenty of time to try different ideas out and see what works.

## Goal 5

Having reflected on my experience of moving out to go to University, I want to live independently again. At the moment I live with my parents following my nervous breakdown, but I think I have recovered from this. I would like to move to somewhere nearby to work, and this will mean I am close to my parents as well should I run into unsurmountable difficulties. I am currently invested in the BT employee shares scheme, and this scheme finishes one year after I finish my apprenticeship. My goal is to have sufficient money for a deposit by this time, which is achievable given my current savings and spending habits.

# Summary

This personal development module has helped me formalise and reflect upon several aspects of my character, based on my past experience. I have examined the role I have within my team, and the parts of my job I enjoy the most, using Belbin’s category model. I currently feel I am predominately a Resource Investigator. This is a useful role within a software team, as new libraries and techniques are constantly being developed. I am a moderniser: I like to look at the team’s current practises and find new ways of improving them. I really enjoy the times we get as a team when a solution is not yet clear, and we have time to explore different ideas. Recently I helped a fellow team member, whom I regard as fulfilling the role of a Plant in this instance, investigate a graph database solution and present it to the rest of the company. The category model informs me I may lose enthusiasm once a project is established. This is true: I generally rely on Completers and Co-ordinators to make sure I do not get distracted. Before I worked at BT, I completed a software project on my own, but I went through several rewrites, not because the problem was changing, but because I would get so far before becoming convinced I needed to start again. This model has helped me reflect on my past experiences and learn from them.

I have been through all the stages of Bloom’s pyramid while working on both my software and my musical skills, but I have spent more time in the higher sections in the realm of software than in music. Comparing the two experiences demonstrate the importance of shape of the pyramid: I feel I have far more knowledge and comprehension of software development, because of my voracious study of software development when compared with music.

I also see the importance of senior developers on my team: their evaluations are valuable since they are based on the other categories in the pyramid. I can learn from them what to base my evaluations upon in the future.

When writing and performing music I am often paralysed by doubts about plagiarism or originality, and my knowledge of music is unfocussed and patchy. As a result I do not get as far up the pyramid, and I do not base my own creations upon the study of those who have gone before me.

By contrast, when writing software I have no such anxiety, I regularly learn by looking at other's solutions before implementing my own. And I am more aware of strategies for adopting other's work, for example through libraries and package mangers.

Anderson and Krathwohl's addition of the Creating mode to the Bloom model further explains my past struggles to write music. In the past I have begun the compositional process from the mind-set that I could produce a finished composition from scratch based on nothing but inspiration. This pyramid demonstrates an alternative path, with evaluation of others’ work a crucial prerequisite step to creation of new material. In the future I shall write a piece for the Hadleigh orchestra that is based on a study of compositions I admire.

From my analysis of my past experiences I conclude that at the moment my knowledge and comprehension make me most productive when writing software, while I am still developing and building my musical composition and performance skills. This will leave me a non-pressured environment in which to play and write music, for example with the Hadleigh orchestra. They will allow me to grow my more instinctive learning style when playing music.

In terms of Kolb's axes, I feel I have an accommodating approach to music. I do not fare well when I analyse: I am at my best when I play instinctively. I have a converging approach to software development. I generally come up with an idea and then implement it.

I feel I have the accommodating approach when planning my life. This personal development module has been important because I have been encouraged to make the switch, if only temporarily, to a more divergent learning style when it comes to fulfilling my life goals. This is a crucial point as I believe that while I may have discovered a default learning style for my music and software learning, I also gain insight by changing styles temporarily.

The team I work with at the moment has a strong culture of personal development and learning that will further boost my knowledge and comprehension, while learning and imitating the senior developers will improve my evaluation skills.

I am fortunate enough to be receiving training and experience in the software industry, which has vacancies all over the world, generally commands a high salary, and includes work that has global impact. It is generally hard to project the direction the industry will develop, but within the business sector I would surmise that automation of repetitive tasks, and data analysis will be two extremely influential areas.

The training I am receiving predominately involves the creation of web-based applications for use within BT. The web application industry is split into two camps: start-ups and enterprise. Start-ups are mostly based in London, and generally have a reputation for high risk and high monetary reward. Several colleagues at BT have found significantly higher wages by joining such companies. Working at BT puts me in the enterprise camp at the moment, and I prefer this since enterprise generally promises better job security. My previous experiences tell me I do not cope well with having an unpredictable future. When I tried to become a professional freelance musician revenue problems played on my mind, even when my position was relatively risk-free.

BT's commercial priorities are split into two parts: the overall strategy for BT, and my team's strategy. Overall strategy is discussed by the senior management team at department-wide webcasts that anyone is welcome to attend. Here past events and achievements are discussed, and the overall direction of the company is described. My team rarely attend these larger scale meeting, since, in my experience, their scope is often too general to relate back to my own work. However, my team is visited regularly by the head of my department, and these visits generate useful discussion and encourage me to consider my team's wider role within BT.

From these meetings I gather that the company's long-term strategy is to drive profits by creating more and more reasons for people to own a broadband landline. This strategy does not appear to include any overall goals for fostering sustainable internal software development. Software development has been handled poorly in the past: the company is still recovering from a significant technical shortfall created by aggressive outsourcing. At a company level, software development at BT is largely about counteracting this shortfall, but fails to act on larger and more complex problems, such as software defined networking. Google use software defined networking to manage their database networks by centralising the control of their network away from their routing devices. By contrast, BT still has a large and complex network whose management falls far behind the industry’s cutting edge.

The strategy for my team, IP Applications, is discussed at quarterly team meetings. We have team retrospectives, which are designed to be examinations of our work practices, but they often turn into useful discussions about what the team should focus on next. These meetings make our targets very clear and that there are opportunities to develop our skills. We are encouraged to learn new techniques and examine and develop existing practices, and regular sessions are set aside for this essential development. Opportunities for further study have been discussed, including completing a Masters or PhD, in fields such as company data analysis and improving how data is processed on the web.

The importance of software development within BT is crucial to my future development within the company. My own beliefs match and have been influenced by the team I am currently working in and learning from, and hopefully I will be able to continue my employment at BT while these priorities are spread to BT as a whole. However I am concerned that if the company does not modernise quickly, it will not be able to compete in the market and I will exhaust opportunities for further development within the company.

My long-term plan is to foster a good work-life balance and to develop my existing transferrable skills in software development by finishing my apprenticeship. I would like to stretch myself to use my apprenticeship to find out as much about how the company does business and organizes itself. At the end of my apprenticeship, I would like to contribute to the overall course of software development within the UK, for example by working towards completing a PhD, or by joining a company applying data analysis or implementing software defined networking. As discussed above, this is the sort of work that could be found within BT if the company can modernise quickly.

I will hesitate before joining a start-up company, because of the stress this will entail. BT has given me a good platform for my work-life balance, and I hope to maintain this platform wherever I work in the future. My job has helped me to maintain what Carol Dweck calls a growth mind-set, where I view my skills and my position as mutable qualities that can be constantly challenged and developed. The apprenticeship scheme is a fine example of a programme that encourages this mind-set. Whatever happens in the future, I would like to maintain this mind-set as best I can.

# References

Atherton, J. (2014). *Bloom's taxonomy*. [online] Learningandteaching.info. Available at: http://www.learningandteaching.info/learning/bloomtax.htm [Accessed 19 Sep. 2014].

Belbin, R. (1996). *Management teams*. 1st ed. Oxford: Butterworth-Heinemann.

Dweck, C. (2012). *Mindset*. 1st ed. London: Robinson.

Kreutz, D., Ramos, F., Verissimo, P., Rothenberg, C., Azodolmolky, S. and Uhlig, S. (2014). Software-Defined Networking: A Comprehensive Survey.

McLeod, S. (2014). *Kolb's Learning Styles and Experiential Learning Cycle | Simply Psychology*. [online] Simplypsychology.org. Available at: http://www.simplypsychology.org/learning-kolb.html [Accessed 19 Sep. 2014].