

Nicholas Rawson

Nicholas Rawson is an Engineer at Aero Engine Controls, currently working in small engine investigations. Here he talks about his career so far.

How did you first become interested in STEM as a career?

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When I was choosing my degree course, I chose it based on career prospects. The current shortage of engineers and the relatively high salaries were what originally tempted me into Engineering.

What pathway did you follow to get where you are?

After secondary school I studied Maths, Physics and Electronics at A-level. I was rubbish at maths – so rubbish that in my first A-level exam I got an E, despite what I thought was plenty of revision! This gave me the kick up the backside I needed, and I began my revision for my summer exams at the end of February. I came out with B in maths for the year, with A's in Physics and Electronics.

My A2 year was not good. I dropped a grade in everything and missed my university grade requirements of ABB. Thankfully my personal statement, which is too often underestimated by young people, was so good I was accepted regardless. I completed my degree in Electronic & Electrical Engineering last year with a First Class Masters. I firmly believe that academic success is 25% intelligence and 75% hard work. The fact that I can go from E to 1st Class demonstrates this.

Once you have a degree in engineering – things get VERY easy. I had 3 job offers on my desk by March 2011, and I accepted my job at Aero Engine Controls soon after (6 months before I was due to start work!). Companies were falling over themselves to interview and employ me.

Was there a moment or intervention that prompted your career choice?

I was fortunate enough in my 3rd year of secondary school to have a fantastic Physics teacher. I really enjoyed physics, and continued it along with electronics at A-level.

What skills and qualities are required for your job?

In my job you need good organisational skills and a logical approach. Currently I am working on a problem where our Electronic Engine Controls for a specific jet engine are causing it to not produce any power during takeoff! It's a very interesting situation. I am leading the investigation team, and we are carefully whittling down the possibilities and zoning in on the problem. We will then devise a solution and implement it.

Describe a typical day in your role

I'm currently investigating a 'take off thrust' which is taking up most of my time. I am currently trying to understand some test results so that I can order more tests. I'm also co-ordinating other members of my investigation team from various specialist departments around the company, and trying to extract information from the customer about the aeroplanes themselves.

There is a lot of emailing, phone calls, meetings as we get to grips with understanding various problems. I like being asked my 'expert' opinion on something just because I understand it. It is very acceptable in this job to just spend time understanding things. Learning from and teaching to colleagues is part of everyday work. It's a relaxed and trusting environment; you are not chained to your desk which is very important to me.

What inspires you about your work and/or about STEM?

Engineering creates and maintains the world in which modern society lives. Nothing will influence the future of the world more than STEM.

Now that I am employed in engineering, engineering offers security – financial and lifestyle. If I decide one day that I don't want to be an engineer anymore, any number of other jobs are open to me – teaching, finance, technician, management. Such choice ensures my future will be a happy one, and that I will never be trapped into working for a company I dislike.

Could you offer any advice to young people?

Money was one of the reasons I originally went into engineering. The starting salaries are high, and there are lots of other benefits. I would be happy to talk about my specifics if young people are curious.

Ease of employment is something I also considered, and is something young people should also consider. A good degree in engineering offers an almost guaranteed path into well paid employment.

If I can go from an E to a 1st class, so can anyone else. It requires good revision technique, steady revision and a well-written personal statement, both of which I would be happy to help with.