Every month we at http://www.wastedtalent.ca/blog ask our panel of engineers a general question from a reader. Have a question? Send us an email! Jam@wastedtalent.ca

Brittany asks:

I’m a MechE student, and I love it - even the homework that makes you stay up all night. Unfortunately, I have despised the two engineering companies I’ve co-oped with. I love school, but I hate the corporate environment. Is there anywhere I can still be an engineer, but get out of the horrible cubicle farms?

Can you escape from cubicle hell? The answer is YES! But beware… our panel of engineers has worked in lots of diverse environments and have lots of advice to share (and pics!)

Jim - Cement Industry, Pennsylvania, USA

Many mechanical engineers don’t work in cubicle farms. You have had the good luck to find a work environment you don’t like, very early in your career. So you have a good chance of tailoring your engineering career to your preferences. Here are some things to think about when you’re pursuing that first post-degree position.

1. Look for smaller organizations. The bigger the organization the more “cubicle” it’s going to be.
2. Avoid engineering consulting companies and departments whose main activity is Engineering, as they tend to put their employees in cubicles.
3. Consider the job title. When it comes to mechanical engineering, the job title can give you some clues:
   • Stay away from the words “Design” and “Applications”. Jobs with these titles mostly get done in cubicles.
   • Look for job titles like Field Service, Sales, Maintenance, Test, Production, Operations, Quality, Inspection, Construction, Development, Site. Mechanical engineers with these words in their job titles spend relatively little time in cubicles.
4. Consider how much, and what kind of travel the job involves. The more you travel the less time you'll spend in a cubicle, all else being equal. And some engineering travel is a great experience in its own right.

Scott - Semiconductor Industry - Massachusetts, USA

Unfortunately, this one is easy for me. There is no escaping cubeville in chip design. I guess the one benefit of being attached to a computer all day is that telecommuting is really easy and many people do take advantage of that. Every group seems to have one person who's a full-time telecommuter and
lots of people who do one or two days a week.

If you’re one of the lucky ones who get to work on prototype debug, you do get to spend a lot of time in the lab (wearing a lab coat, even). But that is mostly watching the computer screens with the occasional excitement that comes from shorting something out and catching it on fire.

**Thomas L. - IT Architecture - France**

Ha Brittany - you’re touching quite the sensitive issue here, as well as a profound one. We all aspire to work in a friendly corporate environment where your qualities and work are fairly appreciated and valued and where everyone work together toward the company’s good.

All in all, this has a lot to do with the meaning you try to find at work, in accordance with your personal values. Some people are able to insulate enough between their workday and their personal life to cope with working in a corporate environment that doesn’t fit with their values. However, you will probably end up more satisfied and balanced if you find a meaning and enjoy going to work.

Friendly, motivated coworkers also make a difference. If everyone at work feels motivated and enthusiastic about what they do, so will you. Some company approach that ideal, usually because of a strong and charismatic leader.

At the team level, a passionate and attentive manager surely helps a lot. Try to find the company that you’re dreaming to work for, aligned with your values, and do everything you can to be hired there. If you are really motivated it will stand out as sincere and you will stand good chance.

In my experience, a friendly and motivating work environment is easier found in smaller companies, but you could find such a thing in a particular department of a big company as well.

When interviewing for a job, ask if it is possible for you to speak with your would-be coworkers in an informal way and without supervision. Then you could find out more about the work environment, habits of management, level of motivation and general mood.

Later, when you get enough experience you can try to become your own boss as an independent consulting engineer and only accept missions that fit your desire if you’re lucky enough. This of course comes with its own responsibilities and challenges...

I wish you best luck in your search of the dream (or least nightmarish :-) job.
Dan - Diesel Engine Manufacturing - Illinois, USA

The first thing I would ask is: what is it specifically about the corporate environment that you didn't like? I know, for example, that I can't deal with the endless reports and petty design for things like shaving a dollar off cost. However, not all corporate jobs are like that (and different jobs/co-op positions in the companies that you've worked for are probably different too!).

You will find that if you look, there are jobs (also probably part of the same companies you worked for) that let you do what you love while minimizing what you aren't willing to put up with. If it is the cubicle farms that bother you, you might want to look into a job which is a bit more hands on, like a research position (what I do for the diesel industry) or a manufacturing engineering position.

I know that I have been lucky in that the jobs that I have had since (and in college) have included a waterjet cutting facility which specialized in custom cuts and fabrications that required a lot of hands-on engineering to pull off.

I worked on a research position for a professor where we studied both supersonic flows and large scale compressors for jet engines, and I am currently in a position for diesel engine research and development.

The biggest thing these all had in common was that I searched these out to have an opportunity to do hands on design (from concept to prototype) as well as be involved with the testing, which is what I wanted in a job. My advice is then to search out jobs which can give you what you specifically want out of an engineering position. At least in my area of the US, there are a lot of small engineering firms (and some big ones) that get you away from the standard corporate experience. From my travels, if you can get what you really want out of the job, that cubicle farm doesn't look so bad in comparison.
We made this out of aluminum bar stock and powder coated it so when the light hits the slats, it creates an image (here, of Jesus washing the feet of his disciples). This hadn't been done in the US before, so we had to design and fabricate all of the mounting and everything!

This is the (nearly) finished build of a past engine project. At the time, I had been on the job 2 weeks when I got handed this project with the directive that we had to design and build this ourselves. I still have the castings at my desk as a memento.
Justin - General Contracting/Construction Management - International

Brittany,

In the civil engineering field, there are a couple of major paths your career can take. There are the design engineers, who work in the office on CAD machines making the drawings from which the building gets built. Then there are the field engineers like me, whose job is to interpret the plans and specifications the designers put together and communicate them to the field staff and workers that will actually do the work. It sounds to me like this is the route you would prefer to take, as it gets you out of the office and the cubes.

Another thing to consider is the difference between large and small companies. A large company with many engineers is far more likely to have a "corporate" atmosphere with all the negatives associated with it. However, large companies also afford opportunities to work on larger and more complex projects that the smaller firms are unlikely to get. Smaller firms are more likely to have a familial atmosphere, with all the good and bad things associated with family.

Work is where you spend most of your time from when you graduate to retirement, so make sure the environment and culture of the place(s) you work match what you want.

Justin

Dyson - Mechanical Technologist - Yukon Territories

There are always places that don't involve cubicles! I, in fact, work in one. We have an E.I.T (mech) who just joined us, a student mech, and myself (a T.i.T) all working under one L.L.Eng! Our office is small enough that we can shoot elastics at each other, ask the boss man a question without leaving the desk, and we can bring our dogs to work.

It can be incredibly hard to find a little outfit to work for where you can really learn your trade. There are two tips for finding what you want:

- Forget looking in the city, once you get your piece of paper, plan on moving. I have a Rule of Thumb for this: Start looking in cities with 60,000 people or less. If you can, travel and actually walk into the offices of the engineering firms around; this helps to meet the "movers and shakers". In many cases, small offices don't have on-line presences or even advertise, so finding them can be very difficult.
Think outside the box. You've already experienced the box, it is dull and unhappy. Breaking the mold can be very rewarding if you are willing to forgo becoming an EIT (EIT's have time limits and require you to work under an P.Eng). Sit on your couch and look around. Everything that you own, wear, live in, and experience is manufactured. Visit local manufacturers, fabricators, and contractors, tour their facilities and ask lots of stupid questions. Your dream job may just fall into your lap in an area that you would have never considered.

There are many more ideas for finding meaningful work, but it usually boils down to the two. The job hunting process is incredibly stressful and exhausting but the rewards are worth the time and effort.

**Johan: Software, Domotics Industry, Netherlands**

I've... never even seen a cubicle farm before. The only reason I know they exist is because of the abundance of them in American media. I'm guessing it's either dependent on the culture or the industry you're trying to work in.

The closest I've come to a cubicle farm was when I applied for a position with a huge multinational consultancy company. They didn't hire me and looking back on it, I'm glad they didn't. I really didn't like the atmosphere there, likely for many of the same reasons you describe.

The closest I've come to Mechanical Engineering was when I interned at a sea research center and I developed a data gathering application for the Naval Engineering department. They had an office, but no cubicles. Most work was, as far as I know, done in the workshop.

So I'm guessing there's not a lot of cubicles here. Sorry I can't help you.
Trian - Groundwater Monitoring Industry – BC

There are a few jobs out there that don't have *you living la vida Dilbert*. For my co-op terms I got to work in the product development department of one company and for a start-up company as well. Both of those involved some R&D as well design and prototyping so I spent just as much time in the shop/lab (and a Cessna Caravan!) as I did at my desk.

Where I work now we are a small team that is part of a huge company and I do some R&D work so I guess I don't feel the corporate part of it. My cubicle is for computer work, storing prototypes parts, and my plants. Working as a research engineer for a company or institute or university would probably give you the same freedom of motion as well. The smaller the operation, the less likely you are to find a cubicle farm. Imagine a custom bicycle shop, for example, that has one engineer on staff. There are probably several boutique engineering jobs like that around as well, specialised product design houses and the like. Other than that, work for yourself and specify dodecahedrons or spheres as work spaces!

Angela – Sustainability Industry – Vancouver

I totally work in a cubicle farm for a huge corporation, so I'll put my hand up there! *Yep! Livin' the nightmare!*
To be fair, it’s a *really nice* cubicle farm. The company takes worker comfort very seriously, so we have lots of fancy-pants chairs and ergonomic lighting and informal workspaces and blah de blah blah, but honestly there is no disguising it – it’s a cube farm.

BUT – I have had other jobs where I didn’t work in a cube farm! Most of them were maintenance-related jobs outside the city, like my recent six-month rotation in Mission, BC. It’s so gorgeous out there… breathtaking, really … and I loved getting the hands-on experience. However, at the end of the day, I would go home and be driven out of my mind. I *hated* living out in the suburban/rural area. *Hate hate hate.* My hatred for life-outside-work far outweighed my enjoyment at-work so I decided to head back to the city.

There are lots of options, of course, that can get you closer to “the best of both worlds”, should that interest you: smaller companies, more travel, longer commutes. Even in my job I occasionally get to travel to random worksites, and that’s always fun.

Everything is a tradeoff, so define your priorities! Good luck!

*Site visit up North*
This is the facility where I worked

The view from the top of my facility. Sometimes they would assign me to just stand out here all day watching water flow downhill. Not so bad (on the sunny days!!)

Bruno - Polytechnique - Junior Software Engineer - Quebec (OIQ)

As a matter of fact, my workplace environment is also very important to me. I have co-oped in an environment like the one you are describing and it’s really uncool.

For my part, I had two choices for that: either a small company
that was settled in a loft WITHOUT cubicles (everything was opened) and another one where you are 2-3 per office. I chose the offices because I can concentrate better with less distractions. It is still a little corporate, but we got a lot of space to ourselves, and it's quiet. This is way better than overstuffing a place with small cubicles to fit more people.

At the end of the day though, what makes my work enjoyable or not is the people I worked with more than the environment. Hopefully, you'll get very nice coworkers that can make you feel good and make abstract art out of the purple fabric panel separating you and your next-workstation neighbor. True story.

Robert - Oil and Gas Industry - Texas, USA

I graduated as a MechE and am currently working as a field engineer, it's about as far away from the cubicle as you can get, for now anyways. For now, while I'm still training and learning the ropes I go out into the field and basically help out the operators with the various tasks that they have, from rigging up to testing the fluids to helping to work on the equipment.

Later, once my training is finished, I'll be put into a more traditional engineering role. It'll still be out in the field, either working with the software that we use or completing the ticket and paperwork that we have. I'll probably still be testing the fluids, but my duties will depend on the district that I'm assigned to, each district treats their engineers differently.

Sadly, even though I'm away from the cubicles, we still have the corporate environment that you want to get away from, but I work for a huge company. Also, before anyone starts considering becoming a field engineer for the oilfield, you should know that it's a hard life. True, I'm not stuck in a cubicle all day, and I get to be outside on nice days, but I'm also outside on the bad days and the hours are terrible. It's hard to have a life outside of work. But that's just the oilfield to my knowledge; field engineers in other industries will have a different experience of things.

So to answer your question: yes you can still be an engineer and stay out of the cubicle farms, you just need to search around a little.
Absolutely! Many who enjoy engineering dislike being in a cookie-cutter corporate environment. Certainly, some people navigate larger corporations by finding a place to work with a comfortable culture - it's possible to find a niche on a smaller team and feel like an integral part of it, even when you're part of a much larger corporation. Other people simply prefer smaller work environments, whether it's because they're less impersonal or because the corporate culture is perceived as more fun.

If this is the case for you, I would recommend looking for employment opportunities at a smaller company such as a startup. Startups are generally regarded as having a more fun and innovative corporate culture, not only because they tend to have fewer employees, but because they are newer and their founders wish to avoid the impersonality of larger companies. Keep in mind that there are downsides to working at a smaller company. Financial stability is not always a guarantee when you work at a new, smaller company - a co-op or internship may pay less or not at all; some startups go under, or may be bought out by a competitor. As with any choice, there are often trade-offs which you have to evaluate.

If you wish to avoid the corporate track altogether, you might also look into the potential of academia. If there are research opportunities in your field, give them a shot to see if you prefer this approach. If you do, doing research and teaching others in a university environment might be more preferable.
It's also possible that you simply haven’t found the right company to work at yet! The best part of being a student is that you don't have to make any lasting commitments to employers beyond a couple of months as an intern. Take this as an opportunity to explore your options and don't immediately discount a potential employer based simply on company size. If you can, ask employees what their experience working there has been, and ask specific questions about the culture to see if it sounds more personable. You may well find that your negative experiences are not indicative of all companies in your field.

Good luck!

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