

Quick Chat with an emerging structural engineer

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Meet Daniel Thompson, a Structural Engineer at Engenium working on the technical engineering design of structural steelwork and concrete works.



Article submitted by Engenium, Supporter of Engineers Australia Western Australia Division Supporter.

Engenium's Daniel Thompson is a qualified civil engineer and has specialised in structural engineering since graduating from University of Western Australia. With over seven years' experience, he has already worked on a range of engineering consultancy projects across Australia, predominately in the mining industry. Daniel joined Engenium in 2013 as a Structural Engineer.

What is your current job title and function?

I am a Structural Engineer and my role consists of the technical engineering design of structural steelwork and concrete works as well as project management responsibilities.

What projects are you currently working on?

My current portfolio of projects includes crane certifications, camp infrastructure design, onsite structural integrity inspections, scaffold replacement with permanent access platforms and belt reeling support frames for clients such as FMG, Rio Tinto, BHP and Pilbara Minerals.

The roles I have undertaken on these projects range from project manager to design engineer.

What do you enjoy about working at Engenium?

Working for Engenium has been fantastic for my development as a young engineer.

I have been given opportunities and responsibilities above my defined role which I have thoroughly enjoyed; including management of personnel, project management, business development and a wide range of site experiences.

I have also been able to expand my technical design skills as a result of the wide range of projects that come through the door at Engenium – some of which can be a bit quirky.

What inspired you to pursue engineering?

I was always very maths and science oriented at school. I remember I particularly enjoyed designing and building a spaghetti bridge in a high school Physics class which led to me deciding to study civil engineering over mechanical engineering.

What is an important trait to have as an engineer?

Having good communication skills is critical to working in a team and successfully completing projects of all sizes; even though spelling and grammar is stereotypically not a strong point for many of us engineers.

What advice do you have for young engineers just starting their career?

Don't be afraid to ask questions no matter how silly they seem. There was a point in all our careers when we asked exactly the same questions.

What is the most challenging project you have worked on?

The installation of a new structure which we completed the design for proved to be much more challenging than anticipated. Unfortunately, during construction one of the pile footings disappeared into an unexpected cavity. This meant that an alternative footing arrangement needed to be designed to cover the loss of the pile. The solution we settled on was a large cap footing which combined multiple neighbouring piles to spread the load sufficiently. The time pressure to develop this unusual design made this quite a challenging project.

What is your favourite engineering project through history?

Bridge design and construction has always been of interest to me, so of course Australia's very own Sydney Harbour Bridge is one of my favourite engineering projects.

What is something your colleagues don't know about you?

I love water-skiing and barefooting (barefoot skiing) and hope to learn to barefoot on one foot someday soon.

What makes you laugh?

Donald Trump.

What is your favourite quote?

"Anyone who has never made a mistake has never tried anything new." – Albert Einstein

Image: Daniel Thompson, Structural Engineer at Engenium.