

## AEROSPACE ENGINEERING

“The Arkwright Scholarship made me aware of what a career in engineering entailed and the steps needed to get there.”

**NAME: PETER SYMES-THOMPSON**



I was a kid obsessed with Lego and had moved on to building single seater racing hovercraft by the time I received the Arkwright Engineering Scholarship. I used the Scholarship's financial award to help build new exhausts and make my first wooden hovercraft go faster. The Scholarship made me aware of what a career in engineering entailed and the steps needed to get there, building on my existing technical interests.

The most important part of my Scholarship was the work experience at Rolls-Royce in Derby. It was fascinating seeing prototypes of the engines now used on the 787 Dreamliner. For a few weeks I tagged along with the 'nacelles and integration team' and sat next to the guy that designed the cool serrated trailing edge on the engine pod. I came away from the experience with my mind set on a career in engineering.

The Scholarship introduced me to other schemes for aspiring engineers such as the Year-In-Industry (YINI) scheme. After my A-levels I did not want to go straight into another 3 years of exams, so applied to YINI and got a job at QinetiQ's marine platforms group in Portsmouth. I spent the year in a team designing the PACSCAT prototype landing craft for the Royal Marines. Later I returned for summer

internships and took part in sea trials on this craft. I had a great time, making lifelong friends along the way.

When I did go to university, I learnt theory behind tools I had seen used in real design offices. A course in engineering can give opportunity for travel, and I was lucky to spend my third year at the University of Washington, Seattle as an exchange student, where I saw the Dreamliner complete its flight testing with the engines I had seen at Roll-Royce.

After university I spent 18 months at Aviation Enterprises developing and testing two tonne carbon fibre blades used in tidal power farms. Next I worked on Wankel engines for UAVs, before moving to my current job with Reaction Engines. Here, we are developing a new class of engine, SABRE, which could enable single stage to orbit vehicles. My role is varied from designing aerodynamic tests to working on new bearing and seal technologies. As if that was not stimulating enough, hovercraft racing has continued to be a passion in my spare time.

Through Arkwright I learnt how to take advantage of every opportunity that came my way; if you don't ask you don't get!

### PERSONAL PROFILE:

Scholarship Awarded  
2005 – 2007

### ARKWRIGHT SPONSOR:

Rolls-Royce plc

### A LEVELS:

Maths, Further Maths,  
Physics, D&T

### UNIVERSITY:

University of Bristol,  
MEng in Aerospace  
Engineering with a  
Study Year in the USA

### CURRENT POSITION:

Design Engineer,  
Reaction Engines



REACTION ENGINES

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