

**William John Meakin**  
**SmartSat CRC Top-Up Scholarship application**  
**Cover Letter**

Project - Onboard Machine Learning for Intelligent Satellites

**My Background**

When I began my degree, I was mostly interested in abstracted application development. As I progressed though I gained an interest in lower level systems and concepts, i.e. computer science over software engineering, hence my interest in pursuing research grew. The opportunity to explore cutting edge technology, investigate novel problems, and contribute to scientific knowledge became highly motivating.

My first exposure was during my Honours project, where I conducted research into optimising a correlation coefficient algorithm for an embedded System on a Chip. This was conducted as part of an industry placement at Minelab, as part of their research and development team, and gave me an awareness of how research can be tailored to industry end-users for practical real-world application.

After graduating and then spending a year as a research assistant in the Advanced Computing Research Centre at The University of South Australia, I decided not to pursue a PhD immediately. I have since spent three years as a tutor at UniSA, and a year as a Staff Cadet at the Royal Military College Duntroon. This has given me perspective and skills that will assist in undertaking the challenge a PhD can be. The motivation, discipline and professionalism I have developed along the way have strengthened my commitment to returning to a career in research.

I am now intent on pursuing a career in Machine Learning, and the domain of embedded systems for satellites extends upon my past experience while suiting my passion for space and exploration. Its continued growth will also provide unique problems to solve to further enhance capabilities for the betterment of the world, and is an area I'm very excited to pursue.

I believe gaining expertise through this PhD will enable an engaging career that necessitates constant skills growth to contribute to emerging technologies. Being a part of the SmartSat CRC will enhance this experience and provide unique opportunities that broaden my knowledge.