# Personal Statement

I am immensely honoured to receive the SPU grant award in support of **Virtual Reality Training for Pediatric Endourology**, a project that directly reflects our commitment to improving surgical education, trainee readiness, and patient safety in pediatric urology.

As the Program Director of the Pediatric Urology Fellowship at SickKids, I see tremendous opportunity to enhance how residents and fellows prepare for technically demanding endourologic procedures. Pediatric endourology requires precise instrument control, strong three-dimensional understanding, and confidence working within small-caliber anatomy. This project will create a low-cost, immersive VR platform that allows trainees to practice these skills repeatedly in a safe, standardized, and engaging environment before entering the operating room.

Our prior research projects have prepared me well for this work. My academic program focuses on pediatric endourology, surgical learning curves, pediatric stone disease, mentorship, artificial intelligence, augmented and mixed reality, posterior urethral valves and global surgical capacity-building. These experiences have shaped my interest in practical, scalable tools that improve how surgeons learn and how programs teach. This grant allows us to bring those themes together in a focused project with clear educational and clinical relevance.

The initial module will focus on posterior urethral valve resection, with future expansion toward flexible ureteroscopy, pediatric stone surgery, and advanced endoscopic skills such as non-dominant hand use, bimanual coordination, scope deflection, and fine instrument navigation. These are skills that benefit from deliberate practice, and VR provides an ideal platform to build confidence and technical fluency.

This award represents an important step toward a broader vision: a validated, accessible pediatric endourology simulation curriculum that can be shared across training programs, including centres with lower case volumes and resource-limited settings. I am grateful for the support and excited for the opportunity to advance a project that can strengthen pediatric endourology training and ultimately improve care for children.