I am a Ph.D. student in Materials Science and Engineering at Arizona State University. At school I use aberration-corrected transmission electron microscopes to study various materials for solid oxide fuel cells. When I'm not doing that, I also enjoy traveling, food, riding bikes and building things.

You can learn more about my research if you visit [**my research group's webpage**](http://crozier.faculty.asu.edu/people/current-graduate-students/will-bowman/). Or check out my site for stuff like my [**C.V.**](file:///C:\dev\apps\wills-website\will.html#cv), and more information about my [**side projects**](file:///C:\dev\apps\wills-website\will.html#projects).

I am a Materials Science Ph.D. Student using aberration-corrected scanning transmission electron microscopes (STEMs) to research solid oxide fuel cell materials. I have experience performing EDX chemical nanoanalysis in the STEM, but much-prefer EELS for the additional electronic structure information available in the near-edge fine structure. I've been fortunate to have access to both a JEOL ARM200F with EDX and EELS, and a monochromated Nion UltraSTEM 100; which together allow me to perform elemental mapping and to probe electronic structure via ultra-high energy resolution EELS. I also regularly operate two FEI SEMs, the XL-30 and the Nova200 NanoLab FIB/SEM. While both are really reliable and user-friendly instruments, the Nova outperforms on routine image quality. Furthermore, the Nova's FIB lift-out capability for precision TEM specimen preparation really opens the door to TEM characterization of a lot of interesting features like interfaces and deposited films.

**work eligibility:** I am a US citizen currently located in the US and eligible to work in the US. I really enjoy experiencing new places and cultures, so an opportunity to relocate within the US or internationally would be great!