Bradley Yost earned a master’s of science degree in Applied Physics. In his thesis, *Ferrofluid in Applied Magnetic Field: Hyperbolic Metamaterial*, Bradley Yost explored how to create hyperbolic metamaterials. A hyperbolic metamaterial is a material that has unique optical properties which cause the material to show maximum transmission for one polarization direction of light, and minimum transmission for the opposite polarization direction of light. Metamaterials usually are very difficult to make because of their sound, optical, acoustic properties. Using ferrofluid, he demonstrated an easy way to create a metamaterial. Ferrofluids are fluids that contain many small spherical magnetic nanoparticles which form columns when a magnetic field is applied. He also demonstrated additional unique optical properties of the ferrofluid while it was within a magnetic field.

Bradley Yost believes that his time at Towson University allowed him to reach his academic goal by giving him the opportunity to work in a research lab, learn new research techniques and apply what he learned in the classroom. He now is a physicist with the Department of the Navy at Naval Air Station Patuxent River in Southern Maryland, in the Photonics and Fiber Optics Research Lab.