About 10% of all galaxies are active, meaning their nuclear region is at least 100 times brighter than the rest of the galaxy’s emission combined. A subset of active galactic nuclei produce bipolar jets as the accretion disk and supermassive black hole interact. Blazars occur when one jet is pointed toward Earth, and represent the most energetic sustained phenomena in the known Universe. As such, blazars provide us with an unparalleled view of the extreme physics occurring in jets near compact objects, like black holes. I utilize first-principles physical concepts to create theoretical models of the primary emitting region of blazar jets, which help us to understand the physical properties behind broadband spectral emission and time variability signatures from these astrophysical powerhouses.