As a current software developer for the subsurface hydrology division, I primarily work on the software package called DREAM (Designs for Risk Evaluation and Monitoring). DREAM processes numerous computer simulations of leak scenarios (a “leak” occurs when carbon dioxide starts escaping from the storage formation) to determine optimal monitoring locations. Being a developer for DREAM, I implement different objective functions that allow hydrologists to pick and choose what kind of optimizations they want out of their monitoring configuration. Optimizations include things such as the cost of monitoring, the variance that each configuration can contain, and the volume of aquifer degraded at a detection point. DREAM can prioritize these objectives to find the most optimal configuration.