The study of Ricci solitons plays a central role in the singularity analysis of the Ricci flow. In this talk, I will present two of my recent works about expanding and shrinking Ricci solitons. The first is joint work with O. Chodosh, which we classified positively curved expanding Kahler-Ricci solitons which are asymptotically conical. The second work concerns about Hermitian shrinking Ricci solitons in the 4th dimension, showing that the Einstein and Kahler conditions place a fairly strong restriction on these solitons if they are J-invariant, as a consequence of the Riemannian Goldberg-Sachs Theorem.