Great hikes near Salt Lake City:

More relaxed-
Donut falls-This beautiful hike in big cottonwood canyon is very popular. I have not done it yet.  http://www.utahoutdooractivities.com/doughnutfalls.html

Lake Catherine (from Alta side)-This great hike starts across from a parking lot above Alta. It is a lovely hike through an alpine meadow to view Lake Catherine. You can add a hike up to sunset peak from the fork where you can first see Lake Catherine. http://local.sltrib.com/hiking/hiking.php?hike=328

Cecret lake- This is a great hike that starts up above Alta. I have not done it yet though I tried once and couldn't find it. After exploring a bit, I found the trailhead but had to go by then. The trail head is further down the road from the parking lot for the lake Catherine hike. You continue on from that and turn left to get to it. The shuttle bus might be a better option. http://local.sltrib.com/hiking/hiking.php?hike=494

Active:
Frary Peak- Did you have a window seat on your flight to Salt Lake? Did you see the beautiful mountains surrounding the great salt lake with its beautiful mountainy islands? Well this is what you see the entire second half of the hike. We also often see cool wildlife. You can stop at the radio tower or go on the slipperier part to the actual peak and a great view of the southern half of the Island. http://www.deseretnews.com/article/705345490/Hike-of-the-week-Frary-Peak-Trail-2-Antelope-Island-State-Park-Davis-County.html?pg=all

Brighton lakes- This hike, starting from the brighton ski resort is a great option if you are not sure how you'll fair with the altitude. The first part is kind of boring going up what is a ski slope in the winter, but when I did there were some cute rodents. You take a right after not too long and go past a waterfall and stream. You then turn up to the first of three lakes. You can continue on and get all three, or turn back when you feel winded. It seems like lake Catherine is a fairly frequent place to spot moose. It is not clear to me if this is a plus or minus. I did not find good online directions (I found it via a hiking book). Here is an option that is a five lake loop. It starts the same as what I did, but I just headed back the way I came after Lake Catherine. http://local.sltrib.com/hiking/hiking.php?hike=360

Bells Canyon falls- This hike to a gorgeous falls is quite popular. You can keep going and make it a mountain active! http://local.sltrib.com/hiking/hiking.php?hike=473

The living room- This hike near the guest house is a classic city limits hike. It offers great views of the valley. At points there is a lot of gravelly rock, so go slow. I did this as an out and back not a loop. http://local.sltrib.com/hiking/hiking.php?hike=383
Mountain active:
Mount Timpanogos- This hike in American Fork Canyon (close to Provo) is a classic. For many Utah hikers its the highlight of their hiking season. There are two ways, the more popular (tons of traffic) and less popular (a little harder, goes past a glacier and a mountain lake only a good amount of traffic).

Pfeifferhorn- This hike is fun and challenging. It is a nice hike to a lake, but then it gets serious. There are some slippery sections and a scramble. The view from the top is amazing and the trip is great. http://www.summitpost.org/pfeifferhorn/151177