The slope of $y = -\frac{1}{2}x + 3$ is $-\frac{1}{2}$. The slope of a perpendicular line is 2, the negative reciprocal of $-\frac{1}{2}$. Its equation has the form $y = 2x + b$. To find $b$, substitute (2, 7) for $x$ and $y$:

$7 = 2(2) + b$, or $7 = 4 + b$, so $3 = b$

This gives the equation of the line: $y = 2x + 3$