## EE 4753/5243 Analysis of Power Systems Homework 10

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$$U(r) = 4\epsilon \left(\frac{\sigma^{12}}{r^{12}} - \frac{\sigma^6}{r^6}\right)$$

$$F(r) = -\frac{\partial U(r)}{\partial r}$$

$$F = ma$$

$$v_i(m+1) = v_i(m) + a_i(m) * dt * 0.5 + a_i(m+1) * dt * 0.5$$

$$x_i(m+1) = x_i(m) + v_i(m) * dt + a_i(m) * dt^2 * 0.5$$