$y' = x^2 e^{x^3}$, $y(0) = 0$

Integrate:

$$y = \int x^2 e^{x^3} = \frac{1}{3}\int 3x^2 e^{x^3} dx = \frac{1}{3} e^{x^3} + C$$

Apply initial condition:

$$y(0) = \frac{1}{3} e^{0^3} + C = \frac{1}{3} + C = 0$$

$$C = -\frac{1}{3}$$

So, $\boxed{y = \frac{1}{3} e^{x^3} - \frac{1}{3}}$