Exercise 1 Let $\overrightarrow{\mathbf{v}} = \langle 6, 8 \rangle$. Find the unit vector $\hat{\mathbf{u}}$ in the direction of $\overrightarrow{\mathbf{v}}$.

$$\hat{\mathbf{u}} = \left\langle \boxed{\frac{3}{5}}, \boxed{\frac{4}{5}} \right\rangle$$