Programming Assignment 1

Consider the initial-value problem for Burgers' equation:

$$\begin{cases} u_t + \left(\frac{u^2}{2}\right)_x & = & 0 \qquad \text{in } \mathbb{R} \times (0, \infty) \\ u(x, 0) & = & \sin(2\pi x) \end{cases}$$

Use second order ENO-LLF to compute the solution at time $t = .25$. Plot your solutions on the domain $x \in [0, 1]$.