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Let \mathcal{H}_2 denote the set of even integers $n \not\equiv 1 \pmod{3}$. We prove that when $H \geq X^{0.33}$, almost all integers $n \in \mathcal{H}_2 \cap (X, X + H]$ can be represented as the sum of a prime and the square of a prime. We also prove a similar result for sums of three squares of primes. (Received March 03, 2008)