$\mathbf{r}(u,v) = u^2\,\mathbf{i} + v^2\,\mathbf{j} + uv\,\mathbf{k} \quad \Rightarrow \quad \mathbf{r}(1,1) = (1,1,1)$.

$\mathbf{r}_u = 2u\,\mathbf{i} + v\,\mathbf{k}$ and $\mathbf{r}_v = 2v\,\mathbf{j} + u\,\mathbf{k}$, so a normal vector to the surface at the point $(1,1,1)$ is $\mathbf{r}_u(1,1) \times \mathbf{r}_v(1,1) = (2\,\mathbf{i}+\mathbf{k}) \times (2\,\mathbf{j}+\mathbf{k}) = -2\,\mathbf{i} - 2\,\mathbf{j} + 4\,\mathbf{k}$. Thus an equation of the tangent plane at the point $(1,1,1)$ is

$-2(x-1) - 2(y-1) + 4(z-1) = 0$ or $2x - 2y + 4z = 0$.