Algorithm 4 Bottleneck BiSkFPN Algorithm

Require: Input feature maps $\mathbf{P} = \mathbf{P}1, \mathbf{P}2, ..., \mathbf{P}n$, Deconvolution kernel size K, Skip connection feature map **skip**

Ensure: Fused feature map **F**

function BottleneckBiSkFPN($\mathbf{P}$, K, **skip**)
    $\mathbf{P}' \leftarrow$ upsample $\mathbf{P}n$ by deconvolution with kernel size K
    $\mathbf{F} \leftarrow \text{concat}\,(\mathbf{P}n, \mathbf{P}')$
    for $i \leftarrow n-1$ to 1 **do**
        $\mathbf{P}' \leftarrow$ upsample $\mathbf{F}$ by deconvolution with kernel size K
        $\mathbf{F} \leftarrow \text{concat}\,(\mathbf{P}i, \mathbf{P}')$
        $\mathbf{F} \leftarrow \mathbf{F} + \text{skip}\,(\mathbf{P}_{i-1})$
    end for
    return F
end function