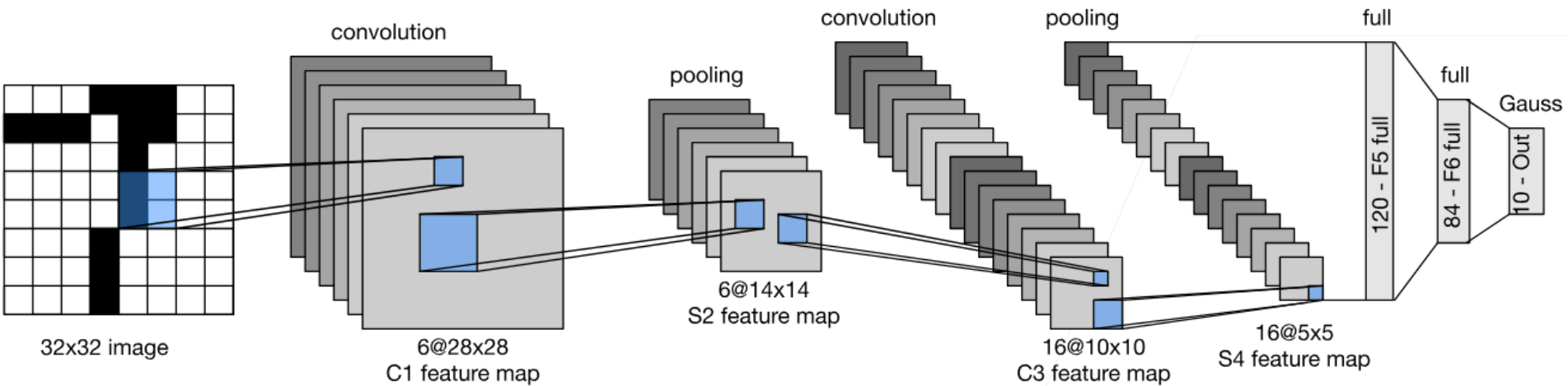
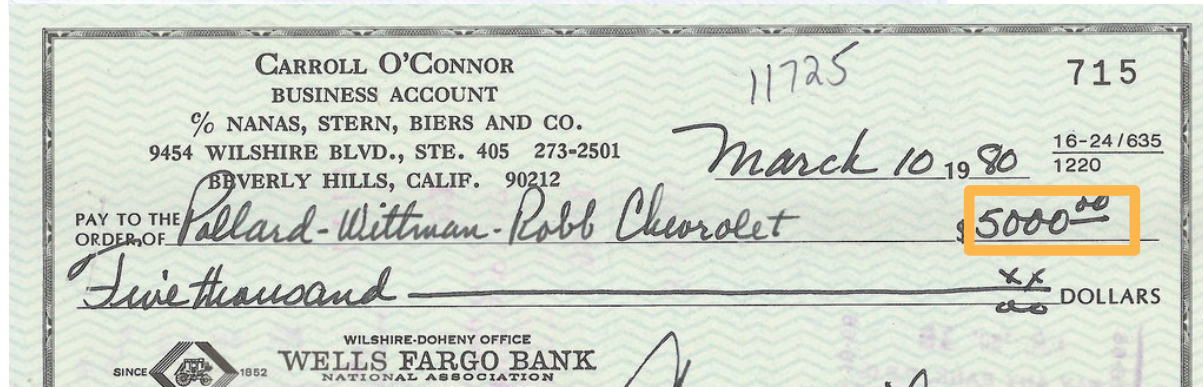
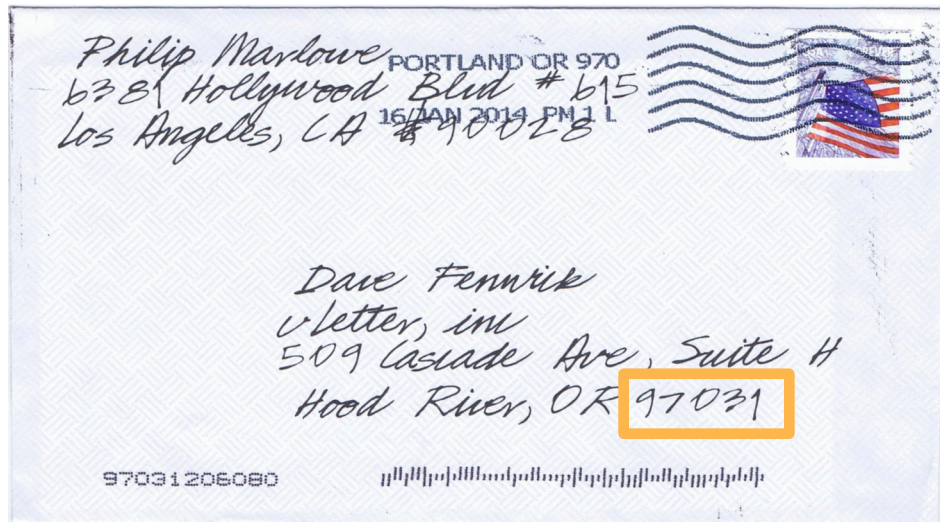




# LeNet



# 手写的数字识别



# MNIST

- 50,000 个训练数据
- 10,000 个测试数据
- 图像大小  $28 \times 28$
- 10类

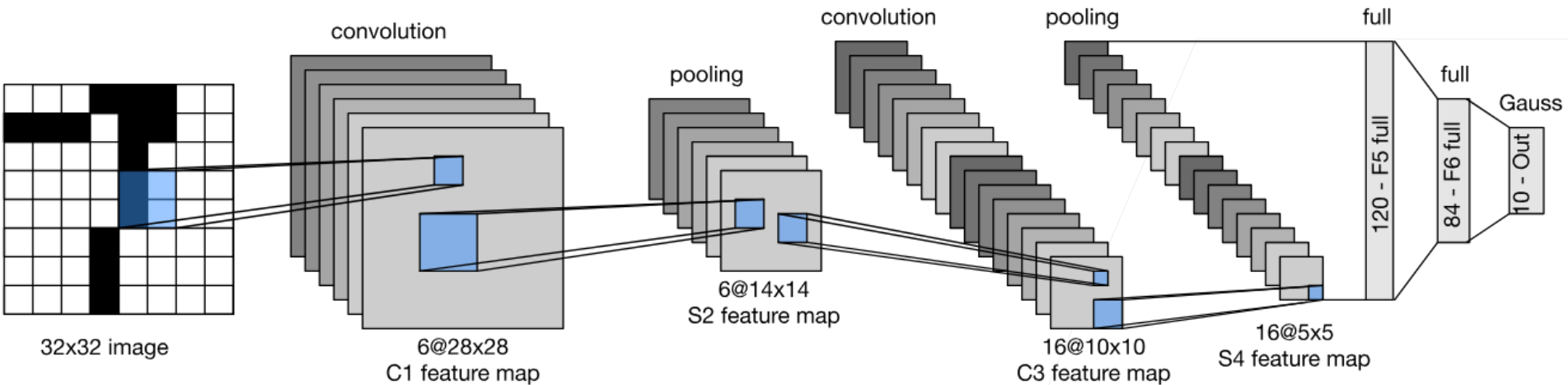




0  
103



Y. LeCun, L.  
Bottou, Y. Bengio,  
P. Haffner, 1998  
Gradient-based  
learning applied to  
document  
recognition



# 总结



- LeNet是早期成功的神经网络
- 先使用卷积层来学习图片空间信息
- 然后使用全连接层来转换到类别空间