A Data

We use a 15K vocabulary (unk-rate 0.5%) and limit the length to 15 tokens (9% sentences are longer) resulting in a 540K sentences (4.8M tokens) dataset which is about six times the size of the Penn Treebank corpus. An excerpt of the (unked) training data is shown below.

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a child is sitting inside and watching tv .
the man is wearing worn out jeans .
two motorcyclists are in physical contact .
a girl colors with markers .
nighttime scene of outdoor food kiosk .
man playing trumpet on the street for dollar bills .
there is a sign at the market .
people relaxing on a beach .
the girl is riding in the back seat of the car .
the choir is at the bowling alley .
a man is naked outside .
the woman is interested in art .
a man is cooking .
three asian men conversing while sitting against a wall .
a cat unk at a sheep .
child shovels snow , near bush , outside of building .
a man holds a bird by the train .
a woman sits at home looking at porn .
women playing a card game .
children are eating apples at their school .
three women wait by a cart of axes at a carnival .
a man with a pierced eyebrow is looking at a laptop screen , while a cat is in the background .
the asian man is working hard on some documents .
people fill balloons .
a man stands next to a bank of computer gambling machines .
a volkswagen bug is driving in a field .
people barely visible except for upraised arms .
young men enjoy the shade under the deck while at the beach .
a musician performs inside .
5 people are in an airplane .
the dog chases a squirrel up a tree .
tall humans performing surgery .
a boy and a girl are playing with dolls in their backyard .
several people play basketball outside .
a man looks at the camera while he sits down in a cluttered house .
two boys skateboard in front of a large statue of a soldier riding a horse in a town plaza .
the men are asleep .
the couple are waiting at the movies .
```

B Example Output

We report 20 unfiltered generated sentences for each of our proposed models as well as the RNN baselines. For a more representative analysis, please refer to https://github.com/schmiflo/crf-generation where we provide 100K sentences generated by the models along with the reference SRI n-gram models.
a group of people are directing vehicles.
a portrait of men.
men walk horses.
a dog runs over a towel slide down the hill.
three women waiting for the bus.
a farmer takes a break.
two white dogs are rolling on the grass.
a clown is wearing mittens.
the man talks away.
two women are throwing yogurt.
young pick camels with it face in the sand.
a classroom of people vendors tacos bowling and protective device.
the divers are being done.
a girl is spinning.
a person is wearing a dark white sling mower.
the woman and a woman are displaying leisure together.
a girl jumping to the skate park.
young firefighters are getting a cookout up.
man looking horse on the river.
mor...
the band plays checkers on the beach.
an artist is swimming.
a football player number plaid shirt together.
a cat is in a gym park nearby.
a child asked does a frozen pole.
cute greyhound train.
a group of people in his newspaper.
a human is selling fun.
nobody is walking past each other on a bowl.
a man takes time looking water with a helmet is hungry.
a pig is near his face.
a person is holding dark.
a man and gold paint a wedding condition.
two people are dancing in strike a bookcase.
there is a gray-haired asian man pose for some art.
a person standing on a roller coaster.
the lighthouse.
a couple gathered for his dog outside.
a group choir dance.
people building is standing next to her family part of a gun.

two people are attend next.
a man is running in dark.
many people are on their at metal.
there are women on.
two boys are in green.
they are at their like kids.
filled person is in their large with items.
two indian men are chasing.
three people are taking pictures outside.
the boy is parked.
a boy is walking to the wedding.
the man is shopping.
a man is _unk.
a boy in a girl.
a boy is on their next in the mountains.
the man is drinking.
one man is to sitting.
a man is performing a yoga.
a couple is swimming in the camera.
the woman is.
the girls are a blonde talk.
a workers are very portraits.
football are up in yellow.
child in vegetables.
a girl is in costumes.
children are waiting for something.
woman are eating picture.
three brothers are performing for eyebrows.
dirt man is are in number apples.
a boy is in son.
i eat nice hugging.
the runners are school.
the couple enjoy their dodgeball.
two guard are their bicycle.
individuals are children at their bmx.
dog chasing some kicking.
outer are are around on.
the brother is wearing seated are people with outside.
bride are up.
children are are taking pictures of gray.