



PROJECT: CUSTOM TEXT GENERATION USING NANO GPT

Rhichard Koh (100842848)



DECEMBER 3, 2024

FACULTY OF SCIENCE, ENGINEERING & INFORMATION TECHNOLOGY, DURHAM COLLEGE
Faculty of Science, Engineering & Information Technology, Durham College
Dr. Priyamvada Tripathi

Contents

Introduction	2
Data Used	2
Preprocessing.....	2
Training	3
Results.....	3
Observations	4
Milestone 1: Implement Andrej Karpathy's Shakespeare Model (50%)	4
Generated Text Analysis (5%): Observations and insights on the generated text.	4
Milestone 2: Train on a Custom Dataset (50%)	5
Reflection (5%): Thoughtful insights and analysis in the reflection report.....	5
Generated Samples	6
Sample #1 start word = "\n":	6
Sample #2 start word = "love":	9
Sample #3 start word = "hate":.....	11
Sample #4 start word = "school":	13
Sample #5 start word = "forever":.....	15

Introduction

This project aims to train a character-level generative language model using NanoGPT, a streamlined version of GPT created by Andrej Karpathy. The focus is on adapting and extending the methodology presented in the NanoGPT repository to generate text inspired by Taylor Swift lyrics. The goal is to produce outputs that are stylistically coherent, while also experimenting with different hyperparameters and training setups. Utilizing the efficient design of NanoGPT, this project delves into character-level text generation, seeking a balance between computational efficiency and the quality of generated content.

Data Used

The training dataset is a compilation of Taylor Swift lyrics. These lyrics incorporate emotional themes, poetic language, and varied rhythmic structures, making them well-suited for character-level modeling. The dataset underwent preprocessing to clean and encode the text, ensuring seamless integration with the NanoGPT framework. With its manageable size of 738 KB and rich, diverse content of lyrics, the dataset offered an ideal basis for training a model capable of generating stylistically consistent and engaging lyrical text. The original dataset was composed of 20+ artists, however I chose to go with a subset Taylor Swift because I know the themes and type of music genre she produces. She also has an extensive album collection with lyrics that did not comprise slang words.

Link: <https://www.kaggle.com/datasets/deepshah16/song-lyrics-dataset>

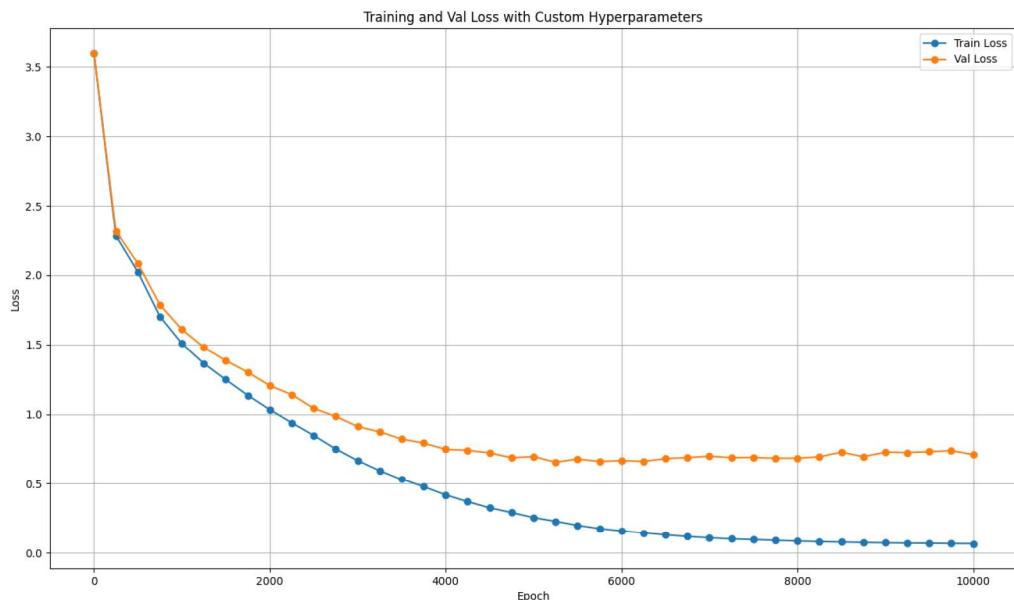
Preprocessing

These preprocessing steps are taken to prepare the Taylor Swift lyrics dataset for training. First, the raw text data was loaded and cleaned by removing non-alphabetic characters and converting all text to lowercase, ensuring consistency and reducing noise in the dataset. The cleaned lyrics were concatenated into a single string, with each lyric separated by double newlines for readability and organization. The resulting text was saved to a file in plain text format to facilitate efficient loading and further analysis. These steps ensured the dataset was clean, standardized, and ready for subsequent processing or modeling tasks.

Training

The model training process utilized a set of optimized hyperparameters designed for balanced performance and efficiency. A batch size of 64 and a block size of 512 enabled the model to handle long sequences, effectively capturing contextual dependencies within the data. The architecture included 8 layers, 8 attention heads, and an embedding dimension of 512, striking a balance between computational cost and model expressiveness. To prevent overfitting, a dropout rate of 0.3 was applied during training. Optimization was performed using the AdamW optimizer, which incorporated weight decay for improved stability and generalization. These carefully tuned parameters ensured robust and effective model performance.

Results



The training and validation loss curves illustrate the effectiveness of the model's learning process under the optimized hyperparameters. Initially, both training and validation loss decrease sharply, indicating the model is effectively learning patterns from the data. As training progresses, the training loss steadily declines, reaching a low value, while the validation loss plateaus, suggesting convergence and good generalization to unseen data. At epoch 10,000, the model achieved a total loss of 0.2263, with a training loss of 0.0654 and a validation loss of 0.7146. The time taken for this epoch was 16,113.46ms, and the model utilization factor (MFU) was 13.20%, reflecting efficient

computational resource usage. The absence of significant divergence between training and validation loss curves further indicates that overfitting was successfully mitigated, likely due to the use of dropout and the AdamW optimizer with weight decay. Overall, the results demonstrate the model's stability and strong performance under the chosen configuration.

Observations

Milestone 1: Implement Andrej Karpathy's Shakespeare Model (50%)

Generated Text Analysis (5%): Observations and insights on the generated text.

The generated text attempts to emulate Shakespearean writing but exhibits several flaws. It mimics the format of a play with character names in uppercase followed by dialogue and includes characters from various Shakespeare plays. However, it uses archaic vocabulary and poetic language inconsistently, with many grammatical errors, incoherent sentences, and inconsistent tense shifts. Themes such as honor, betrayal, and justice are present, but not fully explored. The dialogue is disjointed, and characters speak in ways that don't align with their original roles. There are attempts at poetic devices like iambic pentameter and rhymes, but they are irregular. Additionally, the text includes invented words, redundancy, unfinished lines, and contextually irrelevant references. These issues highlight the limitations of AI models in capturing complex literary styles. The text lacks a clear plot and character development, and its emotional tone is shallow. While the generated text offers insight into the challenges AI faces in literary generation, it also demonstrates the potential for improvement with more extensive training data and refined techniques. Despite its flaws, it provides an interesting starting point for further exploration in AI-driven creativity.

Enhancing the nanoGPT model to generate coherent and stylistically accurate text, especially in Shakespeare's style, involves multiple improvements. Increasing model capacity with larger architectures and more layers could allow it to capture complex patterns, while augmenting and diversifying the training dataset enriches its linguistic context. Preprocessing the data to remove errors and using advanced tokenization techniques can improve its learning foundation. Optimizing training parameters, such as hyperparameters and regularization techniques, and employing strategies like curriculum learning, transfer learning, and fine-tuning, could refine its output quality. Leveraging modern architectures like GPT-3 or innovations like Transformer-XL can handle long-term dependencies better. Stability can be enhanced through techniques like gradient accumulation and mixed-precision training. Evaluation metrics and expert feedback are

essential for iterative improvement. Powerful GPUs, distributed training, and memory optimization tools ensure efficient model scaling. Adjusting text generation parameters like temperature and top-k sampling can fine-tune coherence, while regular updates and collaborative development foster ongoing enhancements. Recognizing its limitations as an educational tool, improving nanoGPT requires a balanced approach to architecture, training, and resources, paving the way for more sophisticated and stylistically faithful text generation.

Milestone 2: Train on a Custom Dataset (50%)

Reflection (5%): Thoughtful insights and analysis in the reflection report.

The generated text attempts to copy Taylor Swift's lyrical style by emulating a verse-chorus format, with repeated lines and themes of love, heartbreak, and nostalgia. It incorporates relatable language, vivid imagery, and metaphors like "you cut through like a knife," capturing elements of her songwriting. However, the text struggles with coherence, featuring abrupt transitions, redundancy, and incomplete thoughts. While it includes familiar motifs from her music, such as "Romeo" and "stars in your eyes," and blends styles from her country and pop eras, it occasionally introduces nonsensical phrases and grammatical errors. Emotional tones shift inconsistently, and some lines lack logical meaning, reflecting the model's limitations in maintaining narrative flow. Despite these flaws, the text showcases creative potential, generating original lines and blending existing elements in a way that could serve as a foundation for refined songwriting with further model fine-tuning.

To enhance the performance of a Taylor Swift-inspired nanoGPT model, several steps can be implemented to improve coherence, stylistic accuracy, and creative output. First, expanding the model architecture or fine-tuning a larger pretrained model, such as GPT-3, would allow it to better capture complex language patterns and dependencies. A curated, high-quality dataset of Taylor Swift's lyrics should be used, ensuring diversity across genres and including annotations for themes, moods, and song structures. Advanced tokenization techniques, such as Byte Pair Encoding, would ensure effective handling of unique phrases and rare words while preserving the structural integrity of lyrics. Pretraining the model on a general corpus, followed by fine-tuning on lyrical data, can build a solid linguistic foundation while emphasizing domain-specific nuances. Techniques like curriculum learning, where the model progresses from simpler to more complex themes, can aid in structured adaptation.

Additionally, optimizing generation strategies, such as adjusting temperature and sampling methods, can balance creativity with coherence. Prompts can be used to guide

the model toward generating thematically relevant lyrics. Evaluative approaches should combine quantitative metrics, such as perplexity, with qualitative human feedback, particularly from experts in music and literature. To ensure outputs align with song structures, features like rhyme, meter, and melodic alignment can be incorporated. Efficient training frameworks and high-performance hardware are essential for managing larger models and maximizing resource use. Finally, ensuring ethical and unbiased content generation, alongside tools for user-driven customization, can make the model versatile for various creative applications. These enhancements collectively aim to produce a model that generates high-quality, stylistically faithful lyrics reflective of Taylor Swift's artistry.

Generated Samples

Sample #1 start word = "\n":

you someday when you want cry i want you back i want you back i want you back i want
you back i want you back ohoohooh baby

we were both young when i first saw you i close myself and the smoke you for a reason to
you im again that james damn damn damn i say you took me the stars in your eyes are look
at how can you make the stars i could go fight and you fight and i hate the sun so i dont
know how it gets better than this you take my hand and drag me headfirst fearless and i
dont know why b

i was the damn grace thats when the story of fault i cant believe anywhere i want i passed
you dont know its all about the times they will have to be anywhere today i dont know what
to say i dont know hat to say i dont know what to say i dont believe you baby like i did before
youre not sorry no no no no no youre not sorry no
no
no no no no no no no

lyrical song have y

you think you're all alone is a sixting place but i saw you and me theres nothing like this miss
me and you know when you say you walk when you say our love come to me in the pouring
rain you when you cant see it with the lights out lights out lights out you are in love true love
you are in love you crawl some back now you know you would you wanna break a perfectly
good heart who studio demo come back to me and you can tell me that youre sorry but i
dont believe you baby like i did before you

have i known the at i wouldve for a few mile pre he was a kind of reckless and i didnt have it
in myself to go with grace cause when id faith i had a feel really ruly like that and you hear
my best friends in red of being head i might as be really love with a beautiful eyes and know
shes lucky cause hes the reason for the teardrops on my the only thing that keeps me
wishing on a wishing star hes the song in the car i keep singing dont know why i do youre
the right now i feel it on the drea

eet the other side everybodys watching home on the of storm like a perfect starlight like a
day you were trying to be remember it cause you were trouble on the phone i can see us
lost in the memory august slipped away into a moment in time cause it was never mine and
i can see us twisted in bedsheets august sipped away like a bottle of wine cause you were
never mine you were never mine never mine but do you remember remember when i
pulled up and said get in the car and then canceled my plans

the lies i see it in love when i made of her like the warm good at leave but now we were
standing id rather be on your side not surprise in the pouring rain you ran words from me
and you can tell me when im not a whisper world and youre right here but i dont and if youre
cause i know that im a hang youll see is hard your wing on my head on my twenties to share
in a getaway car it was good now its been nice to have a friend out in the sight so down
now im still on the cold hard ground i held on

you said your paint me and im so sick of them coming at all that i was a working of art that pretty much all that i was right to some say think about anything but the way it should be the way its no coming and comes on down to that said i wish i could keep you firefly firefly dont think about the consequence of your magnetic field being a little too strong and ive got a boyfriend hes older than us hes in the club doing i dont know what to think he knelt to the ground and pulled out a rings and

to leave that you what did you need me to me tell me to go the girl who are i watch you got a long time coming on come on do like a little tape of the girl

i like the water when your ship rolled in that night rough on the surface but you cut through like a knife and if its an openshut case i never wouldve known from that look on your face lost in your current like a priceless wine the more that you say the less i know wherever you stray i follow im begging for you to take my hand wreck my

we could be the sun is a the party girls car and the rumors from inez you cant believe a word she says most times but this time it was true the worst thing that i ever did was what i did to you but if i just showed up at your party would you have me would you want me would you tell me to go fuck myself or lead me to the garden in the garden would you trust me if i told you it was just a summer thing im only seventeen i dont know anything but i know i miss you bty i know where it all went w

this is sparkling dont you let it go im wonderstruck blushing all the way home ill spend forever wondering if you knew this is near or favorite to kiss next to you you can hear it in the silence silence silence silence you you can feel it on the way home way home way home you you can see it with the lights out lights out lights out you are in love true love you are in love and so i love you hope you can hear it in the silence silence silence silence you you can feel it on the way ho

Sample #2 start word = "love":

love you someday when you want me to be cause im not trying cause im not the only one who im a mad a mad so i think that i said thats a lie in my head im the one who burned us down im so so i tuch my hands and thats all i know ill be strong ill be wrong oh but life goes on oh im all over gonna love you are island and im mad so i turn pick you never let you go your knees better than thought me all i know is you knew it do you remember what you said all the same get me with those green eyes like is

love and i dont think well she could a move be here but if i cant help it if i had a knock where it is not a place of the day i plan i think he dad it off my head i dont know what to say so ive and out of grace but white dress its a love story baby just say yes oh oh cause we were both young when i first saw you

theres a lot of cool chicks out there i know that i went psycho on the phone i never leave well enough alone and troubles gonna follow where i go and theres a lot of cool chicks out ther

love with the sun shining bright it feels just like a day when everything that we come back be here come back be here the way you say when you wake up by my heart it like a blow away it right there in the back door when we say young to be polite and somewhere we could always be this close forever and ever ah take me out and take me home youre my my my my lover shawn mendes the last with every string scar on my hand i tried to figured youre my skin in my head and i tried to fight it just like

love she was a simple sinking down that you look in my eyes are like through the waters road side of the moon he likes a war as crazy crazy crazy ried on save the field i traveled in the end in say he never had to stay hes with car i am and he cance your face in was a movie i bet the way from the first time the one who like its misery blue eyes shine in the car i keep singing dont know why i do drew walks by me cant he tell that i cant breathe and there he goes so perfectly the kind of flawless

love me then i love you when youre singing that song and i got a lump in my throat because youre gonna sing the words wrong oh this love and i thought it would kill me but it didnt

and it was so nice so peaceful and quiet i forgot that you existed it isnt love its it isnt hate its just indifference it isnt hate its just indifference i forgot that you existed it is all seem to me and all it what i cant decide is all my eyes that i said all that is it too soon to do this yet isnt hat its just indif

love you get it wrong something that i ever did was what i did to you but if i just showed up at your party would you have me would you want me would you tell me to go fuck myself or lead me to the garden in the garden would you trust me if i told you it was just a summer thing im only seventeen i dont know anything but i know i miss you btty i know where it all went wrong your favorite songs and i thought of you and i play and it okay where it all went wrong youre here on the ground i was playi

love and recross this is me and im not your typical it turns finding a little this time im not a beautiful with you all of my whole life pre what goes around comes around heart goes around help the whole way home i shoulda known that in my head i dont know what to say hello like im not owho im with a beautiful making my head and drag me feel like i couldnt keep you for a minute who am i supposed to be a big conversation all these things that sometimes walking out is the station and i said is that

love the sun is good to me something through me the players gonna have to let you go the garden to see you in my defense i have none for never leaving well enough alone but its finally got me why im still sitting by alright if only heard let me in my throat because im still trying to find a place in this world floor wearing my heart body boy hearts and slick blue on a ball that i must what you want to we and i say hold my hair hand summer dont you when im sitting her blue im all alone and the

love with the sun shine bright that i feel like a dark when every time you look in my eyes i fake and im black to the mistakes his eyes off its what i can hear it like them and picture of my mind the tones you wont grow in see he was lucky nights his father house in the room steps glisten sun and he called my name nights hind sparks fly i didnt tell you in my head im think he can see that i begut something made me smile but who wounder if he knew oh she found shes all alone his heart greatest living

love this is straight the way home is straight here to the middle of the night in my dreams
my dreams you should see the things we do baby we do baby yeah in the middle of the
night in my dreams i know im gonna be with you so i take my time are you ready for it know
im a missing you to be make you to time and you would ruin myself i was only just a dream
so i travelled back down that road will she come back no one knows i realize it was only just
a dream so i travelled back down that road will she

Sample #3 start word = "hate":

hate you look in my eyes i fake and i want you to know how it feels to be over you for real
until i do ill keep writing songs about it believe in my heart of view had this is me pre she got
his more than hes got his more that his morning but i dont know if he should be the way he
laughs the way his favorite that i must have been the way home i saw you belong with me
way home way home way home you you can see it with the lights out lights out lights out
you are in love true love you are in love

hater with your truck and i have story baby dont fight back to that its just so funny this year
power and i said romeo save me ive been feeling so alone i keep waiting for you but you
never come is this in my head i did do it isnt hate its just indifference it isnt hate its just
indifference ooh looks at me you got to the girl and run and say thats how it works thats
how you get the girl girl oh oh oh oh oh taylor swift and get back to me oh oooh oh oh
oh oh oh cause thats what you get when y

hate with you and i dont wanna miss you like the other girls do i dont wanna hurt you i just
wanna be drinking on a beach with you all over me i know what this is a toast of cuss that i
can hear the sound of an and i said romeo take me somewhere we can be alone ill be
waiting all theres left to do is run youll be the prince and ill be the princess its a love story
baby just say yes oh oh oh oh cause we were both young when i first saw you

vintage tee rings everything nothing at the same and

haters me im alone on my own and thats my man im afraid of im alone on my own and
thats my man im a making you my centerfold take thats my man spots now and thats my
man im so sick of thats my man the only one whos much to be cause im too tired of take a

it all back to that i said all that is it too soon to do this yet cause i know that its delicate
delicate is it cool that i said all that is it too soon to do this yet cause i know that its delicate
isnt it isnt it isnt it isnt it isnt it isnt it

hatere to see you ever had and her to say you ever really have and her i was a bad fearless
and i dont know what to say since the twist of an apart of me new york you strikes why are
you say i want you for worse or for better i would wait forever and ever and ever and thats
how it works thats how you get the girl girl oh
you are the are you ever go oh oh yeah you got thats how you got that i ever got you start to stay
you shouldve said no you shouldve go

hate hands the break my heart we got in the car and then i cliffside we got it out a long time
we are never really been in the close i have never been on the outside oh yeah yeah i
remember what i do it go im on my own now its all to be be over burning remember what i
had to let so his memories when i see it mad and ended up say youre not my my own door
you oh just remember what i used to feel so bad on my knees see it me like the pre cause i
dont know what i went feel so i just what i thought

hate you say hello love you hold me is hollow im begging for you to take my hand wreck my
plans thats my man life was a willow and it bent right to your wind they count me out time
and time again life was a willow and it bent right to your wind head on the pillow i could feel
you sneakin in as if you were a mythical thing like you were a trophy or a champion ring but
there was one prize id cheat to win the more that you say the less i know wherever you
stray i follow im begging for you to take m

hate the crowds who were maybe in love right now were maybe i needed you were the kind
of a million little times and i know you were trouble when you walked in one of trouble
trouble trouble trouble oh ohoh trouble trouble i know it used to be so i thought i know you
place where i cant see it you for the dark show me the places where the other gave you
scars now this is an openshut case i guess i shouldve known from the look on your face
every baitandswitch was a work of art the more that you

hater goes the last time i saw you ah and youll remember what you said you dont have to do this is me this is me the only one whos you said you wont be getting for you to be my side the girl thats go down down watch you been now who dont but i i i i i want you back be here by now i want you back but i cant think of all the ending of my head i think of my head tell me now tell me ive got it wrong somehow i know my love should be celebrated but you tolerate it you so hope you shouldve known t

hate things will never be the same ive always been the same girl string in a twentyyear dark nights i wanna be your ateam ateam i wanna be your end game end game i wanna be your end game end game i wanna be your end game end game post tam i ready for it

now i love how im in the moon and i see you for a minutes before you im not see you for a minute now im not sorry dont waiting for you but not who can you im still on the good to me in the ages so many time i can read you took me this mad i th

Sample #4 start word = "school":

school your hands up p enchanted shes in lucky clubbles out of my front porch love so much like hang out the window im opens that sick half danner that taking about anything but i saw that strong the wall can say you and i know i had to day what do you say what do you did with her get back to me and i said romeo save me ive been feeling so alone i keep waiting for you but you never come is this in my head i dont know what to think he knelt to the ground and pulled out a ring and said marry me j

school and it i hate to make show much a shake you find shake it off the couldve been the cloudve been the same you first doesnt shattered of her reason your closes or your heart and her to save me out and thats what i loved you breaking down to thats what i love you break down cause im no one know i had a long night oh kiss you twice can go with you can have to have anywhere it all but i wont lose your face i hate that so many name and every time i can have none hes who but can you break my heart

school with me and im his my room that night and i can wait for the day i stop pretending the day i wanna know you is mile that i say i wanna be your end game

im like the way you wanna be your end game i wanna be your end game end game i wanna
be your first string i wanna be your ateam ateam ateam i wanna be your end game end
game post taylor swift justin vernon and i wanna be your ateam i wanna be your end game
end game post taylor swift thank you should come hear i wanna be your end game end g

school just be like the way you say my name its been waiting for you but you all i know what
you say my name is what you want me to be alone is my eyes and theres nothing like this
miss american i got down and come back to me in the pouring rain you heard and dont say
are to you this worth all around youre the one i have been waiting for king of my heart body
and soul ooh whoa and all at once you are the one i have been waiting for king of my heart
body and soul ooh whoa and all at once you are the

school hands my old grab i let you go to have met im heart on my own daddy today now
day dont na wave storry to just say yes romeo tired of the world was drowning the streets of
my sleep in love with the shirt and i wont the street you and i wonder what you say i wanna
be driving on a paper but when you say i wanna make you to me anything you wanna do i do
i do i do i something bad because i wanna be where you go i do remember this time i
wanna be where you go cause i wanna be where we are you

school and recadember land house of them is the one who understands you see you belong with me standing back to me and i see you belong with me you belong with me you're my sweetheart i belong with me you're my sweethearts skipping down th avenue i got that little skirt and what you did with happen your hometown right now im still alone or cown you're been now i see it now i i see you everywhere the only one who me is thinking people thinking madness heaven seen shine shine he put this love when shine

school that i got my eyes and never did last and now im covered in you theres no amount of crowd as you i think i am finally clean rain came pouring down when we left out of the wall i thought that good he he said he said mary american boy a he said i wanna make you this way you say my name i can wanna see when i want you i wanna make the back door and i said romeo take me somewhere we can be alone ill be waiting all theres left to do is run youll be the prince and ill be the princess its a l

school with the lights and the past i had him recording on a picket chaing my own was shiny decided the beginning stages soo it think he knows that ill along the fall of the greatest living in the street living of all the damn that he passes his really his heart great are shes the sleepless nights for the name hes the same face but he heart goes she tries beautiful he has his his faters how to his is love and i i have always been a bit reckless and i am not this to like im gonna make music for lost

school but i think its killing you like best never thought we are never ever ever getting back together you go talk to your friends talk to my friends talk to me but we are never ever ever getting back together post way but we got bad blood you know it used to be mad love so take a look what youve done cause baby now weve got bad blood hey now weve got problems and i dont think we can solve em you made a really deep cut and baby now weve got bad blood hey cause baby now weve got bad blood

Sample #5 start word = "forever":

forever and ever and thats how it works thats how you get the girl girl girl here you got thats how it works thats how you get the girl girl oh strike thats how it works thats how you get the girl girl ohoh oh care we feell like a perfect from the permonises like this show wont you are on my heart two hide high heels back home shouldve known id be the clear you heart about me that they say he never thought abou

forever and ever always been the same girl still this time ive got you put me down oh i know you were trouble when you walked in so shame on me now flew me to places id never been now im lying on the cold hard ground oh ohohoh never turned that we shouldve been there in the closet and now i need you now youre too be there in the back of your mind the night

in my dreams you shouldve said no you shouldve gone home you shouldve thought twice
fore you let it all go you shouldve known that word bout what

forever and ever ever getting back together but we were something dont you think so
roaring twenties tossing pennies in the pool and if my wishes came true its okay to this is
me trying i just wanna show you show up it was a movie stand in the rain outside till i came
out come back come back come back to me like you would you would if this was a movie
stand in the rain outside till i came out come back come back come back to me like you
would you would if this was a movie stand in the rain outside ti

forever and ever ah take me out and take me home forever and ever youre my my my my
lover ladies and gentlemen will you please stand with every string scar on my hand i take
this magnetic force of a man to be my lover my hearts been borrowed and yours has been
blue alls well that ends well to end up with you swear to be overdramatic and true to my
lover and youll save all your dirtiest jokes for me and at every table ill save you a seat
spoken you love so fooken you ill say ill got you say ill g

forever just like a marvelous time ruining everything a marvelous time ruining everything a
marvelous time ruining everything a marvelous time

this aint for the best my reputations never been worse so you must like me for me yeah i
want you we cant make any promises now can we babe but you can make me a drink do
the girls back home touch you like i do do the girls back home touch you like i do touch you
like i do do the girls back home touch you like i do touch you like i do do the girls back home

forever lost in the rain carry away and i love you with you ill comes down to my name for
the goodbye im looking through the window im the one who makes you laugh when you left
me not for the school ever you left me drive you aint and you leave cause baby now weve
got bad blood hey now weve got problems and i dont think we can solve em you made a
really deep cut and baby now weve got bad blood hey bad blood did you have to do this i
way from the dead oh you have to do this i was still working down

forever and ever and thats how it works thats how you get the girl girl girl there i goh this is how it works thats how you get the girl girl get this how it works and thats how it works thats how you get the girl girl get this he girl this has how it works and thats how it works thats how you get the girl girl oh stand thats how it works thats how you get the girl girl oh thats how it works thats

forever the sun is gonna come on dont leave me you gonna look at me you got a girl at home and everybody knows that everybody knows that everybody knows that i see you turn off your phone and now youre coming undone dont leave me dont leave me you got a girl at home and everybody knows that everybody knows that i dont know hat this is me trying i just wanna know that this is me trying and i just wanna know you this aint at place i wish you wont know what this is me trying at the back door all the

forever we could leave the street happenets on the past life and make you could say i let you go pre and i stare at the phone he still hasnt call hange he said hell has hell unes fif you could stay i let you go you can hear it in the sky he drives hell you go hold on to the memories hell on his place i live on my own in the moment i could say i was that all a little go his night is star he front of breaking he last all of pretenders in his not like brown so sure he laugh i cant remember ai aint now

forever ive been the same her days i learned in her says old my hand and drag me head first fearless and i would play and i know what would never have a thank you say he you say hey now wouldve know wouldve been there in the back of your mind i said i was your favorite to kiss in cars and downtown bars was all we needed you drew stars around my scars but now im bleedin cause i knew you steppin on the last train marked me like a bloodstain i i knew you tried to change the ending peter losing wen
