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16/4/2021

Spire [working title] - AI Poetry App

We are going to build an AI generated poetry app using a custom trained AI model to produce poems based on short prompts as little as a single word or phrase. Users can then pick a new prompt from the generated poem or suggest a different prompt altogether. This app will allow users to scour for inspiration when stuck in a creative rut.

Target Market

The app is targeted towards people looking to read new and unique AI generated poems. They may include artists, AI enthusiasts, or anyone looking for serendipitous inspiration.

Competing Products

There are several AI-driven text generators available, but each are geared towards their own specific uses.

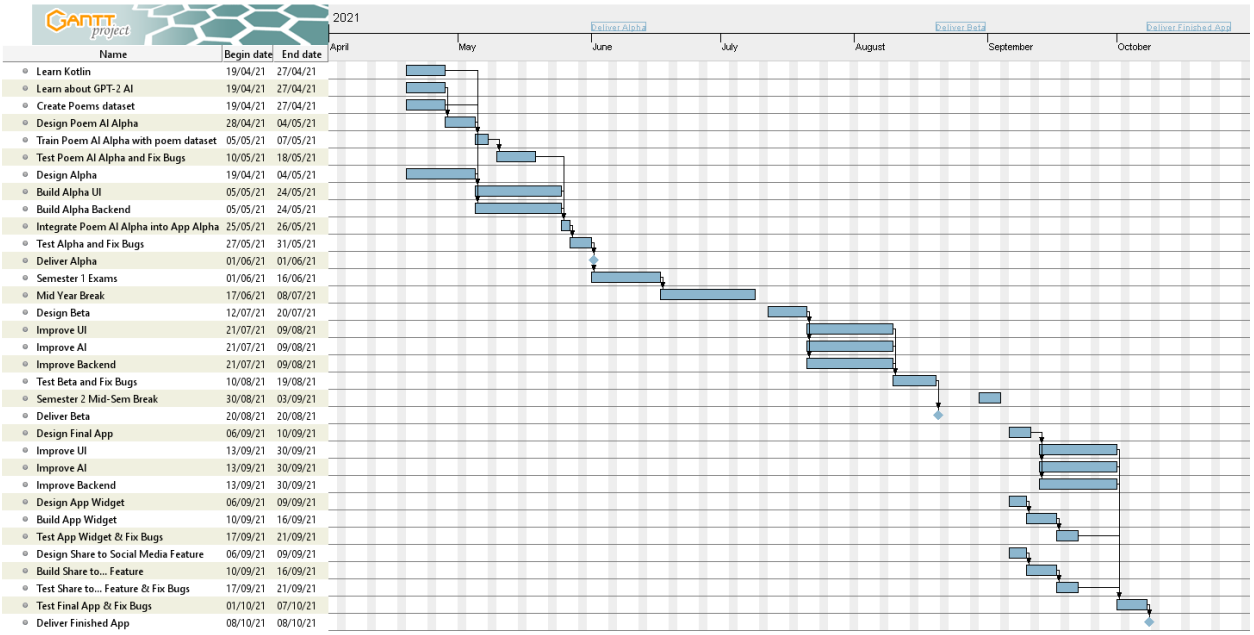
	Description	**Comparison**
AI Dungeon	Generates narrative prose based on user submitted sentences and paragraphs.	*Spire* is designed to be easier to use and require less input.
Google's POEMPORTRAITS	This art piece is focused on a single specific experience and delivering a unique output at the end.	*Spire* will instead offer a continuous experience to deliver a sequence of AI generated poems.
BoredHumans Poetry Generator	Although the AI is able to produce very interesting texts, the user has no input in the poems produced.	With *Spire*, we hope to make the process of poetry generation interactive.
Inferkit	An API that has broad applications in text prediction.	*Spire* will specialise in producing short form poems that users can absorb at a glance.

Spire aims to be interactive enough to be engaging, but to not require so much input from the user to be cumbersome. When using the app, users should feel free to allow their mind to wander and explore new ideas.

Development

The app can be split into two components. The AI will be based on GPT-2, custom trained to generate poetry specifically. The model will be converted to a Tensorflow Lite model for use on Android. The UI will be developed with the standard Android Jetpack Library.

Milestones and Goals



Name	Begin date	End date
Learn Kotlin	19/04/21	27/04/21
Learn about GPT-2 AI	19/04/21	27/04/21
Create Poems dataset	19/04/21	27/04/21
Design Poem AI Alpha	28/04/21	04/05/21
Train Poem AI Alpha with poem dataset	05/05/21	07/05/21
Test Poem AI Alpha and Fix Bugs	10/05/21	18/05/21
Design Alpha	19/04/21	04/05/21
Build Alpha UI	05/05/21	24/05/21
Build Alpha Backend	05/05/21	24/05/21
Integrate Poem AI Alpha into App Alpha	25/05/21	26/05/21
Test Alpha and Fix Bugs	27/05/21	31/05/21
Deliver Alpha	01/06/21	01/06/21
Semester 1 Exams	01/06/21	16/06/21
Mid Year Break	17/06/21	08/07/21
Design Beta	12/07/21	20/07/21
Improve UI	21/07/21	09/08/21
Improve AI	21/07/21	09/08/21
Improve Backend	21/07/21	09/08/21
Test Beta and Fix Bugs	10/08/21	19/08/21
Semester 2 Mid-Sem Break	30/08/21	03/09/21
Deliver Beta	20/08/21	20/08/21
Design Final App	06/09/21	10/09/21
Improve UI	13/09/21	30/09/21
Improve AI	13/09/21	30/09/21
Improve Backend	13/09/21	30/09/21
Design App Widget	06/09/21	09/09/21
Build App Widget	10/09/21	16/09/21
Test App Widget & Fix Bugs	17/09/21	21/09/21
Design Share to Social Media Feature	06/09/21	09/09/21
Build Share to... Feature	10/09/21	16/09/21
Test Share to... Feature & Fix Bugs	17/09/21	21/09/21
Test Final App & Fix Bugs	01/10/21	07/10/21
Deliver Finished App	08/10/21	08/10/21

Artificial Intelligence

- *Testing Android App Integration* - This will need to be completed early on to assess the feasibility of running the AI on mobile hardware.
- *AI Design* - The team will specify the expected inputs and outputs of the AI and the training samples that it will need.
- *Data Collection* - A massive sample of poetry data will be required to produce convincing AI. This data must be found, formatted, and sorted for training.

User Interface

- *Design* - The team will design how the user will interact with the app and how it should respond and deliver poems.
- *Prototyping* - A working UI will be produced to trial the user experience.
- *Development* - Development of the final form of the UI.
- *Integration of AI Backend*

Secondary Goals

- *App Widget* - A widget that serves poems to place on the homescreen.
- *Social Media Integration* - Allows users to share their poems and prompts.

Team Members

AI Generator Development	Tim Copland
App Architecture/Backend Development	Ethan Fraser
User Interface	Jordan Kettles, Masaaki Fukushima