SOFTWARE DESIGN DOCUMENT

for

the Sleeping-Zero Algorithm and Neural Synthesizer

(The hybrid algorithm)

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1. INTRODUCTION

1.1 Purpose

As humans, all our actions are controlled by our thoughts, and our thoughts vary based on our environment. The brain is the center of all human activity, and these thoughts, on a lower level, appear as electrical impulses.

Humans have found a way of replicating the natural existence of the brain by creating artificially intelligent systems. From driving a car, flying a plane, virtual reality, augmented reality, real-time chatting, live sports, holograms, Zoom calls, etc. All these represent a certain aspect of how the brain functions, and each specializes in manipulating the hormone responsible for how we react.

This document explains the hybrid algorithm; a computer software that borrows concepts from the brain's neural system.

1.2 Scope

The algorithm itself is a lower-level concept, which is part of a software package that also includes another algorithm that runs as a neural synthesizer.

Both algorithms are the foundation of our company's envisioned digital ecosystem, and we intend to release it as a **Thought-as-a-Service (TaaS)** software.

Now, we don't expect users to directly interact with this hybrid algorithm. BeezGroup is a technology conglomerate and has set an action plan for building **Software-as-a-Service (SaaS)** products and services in every sector of the economy ever imagined. How, what, when, where and with whom the users interact using these SaaS products/services will be influenced by their thoughts that the hybrid algorithm (sleeping-zero and neural synthesizer) listens to while in the background.

The main reason for calling it a TaaS product is to empower humans to make responsible thoughts with minimum costs. Everything begins with a thought, and for every thought there are consequences (good or bad). Expected costs we have looked at include *time* and money (Since we all love money!).

It is important to note that the background hybrid algorithm will also listen to itself as measure of ensuring that its response to your thoughts is fit for you, both as an individual and with the people you met, meet and will meet.

1.3 Overview of the document

This document is divided into five sections:

Chapter 1: Describes the purpose of the document, scope of the software and overview of the document.

Chapter 2: Describes the general over view of the algorithm including its functionality, context and design of the system.

Chapter 3: Describes the algorithm's architecture and gives an internal description of its functions. This consists of an architectural design.

Chapter 4: Describes the data design of the algorithm which comprises of the Data description that describes how the information domain of the algorithm is transformed into data structures and the data dictionary that provides description of the data types.

Chapter 5: Describes the component design which involves a systematic description of each sub-algorithm and its functionality.

2. ALGORITHM OVERVIEW

The hybrid algorithm works in anything on Earth and space that runs on electric power. The first time any of our SaaS products is installed on that 'anything', the algorithm will first study that 'anything' and its user to develop a benchmarking cognitive report. Based on the report, the user can then check him/herself (meditate) and make a personal decision to either continue using that SaaS product or delete it (consent status).

This report developed by the algorithm will be sent to anyone listed by that particular user during the analysis. The people who receive this report will have the opportunity to interact with this user, and together they decide on the consent status.

If accepted, the impact on the inner and outer being of a user will be as a result of the user's own thoughts and not the algorithm. We intend to have no legal binding contract to the decisions a user makes while using our SaaS products because the hybrid algorithm is just there to assist you in executing your decisions effectively.

It is also very important to note that this hybrid algorithm will be open sourced to everyone around the world. By having a global community that maintains this algorithm, it creates a balance in the outcomes of using this algorithm because there will always be someone somewhere on Earth responsible for what any user is thinking or intending to do.

3. ALGORITHM ARCHITECTURE

3.1 Architectural Design

The design comprises two components; the Sleeping-Zero algorithm and the Neural Synthesizer.
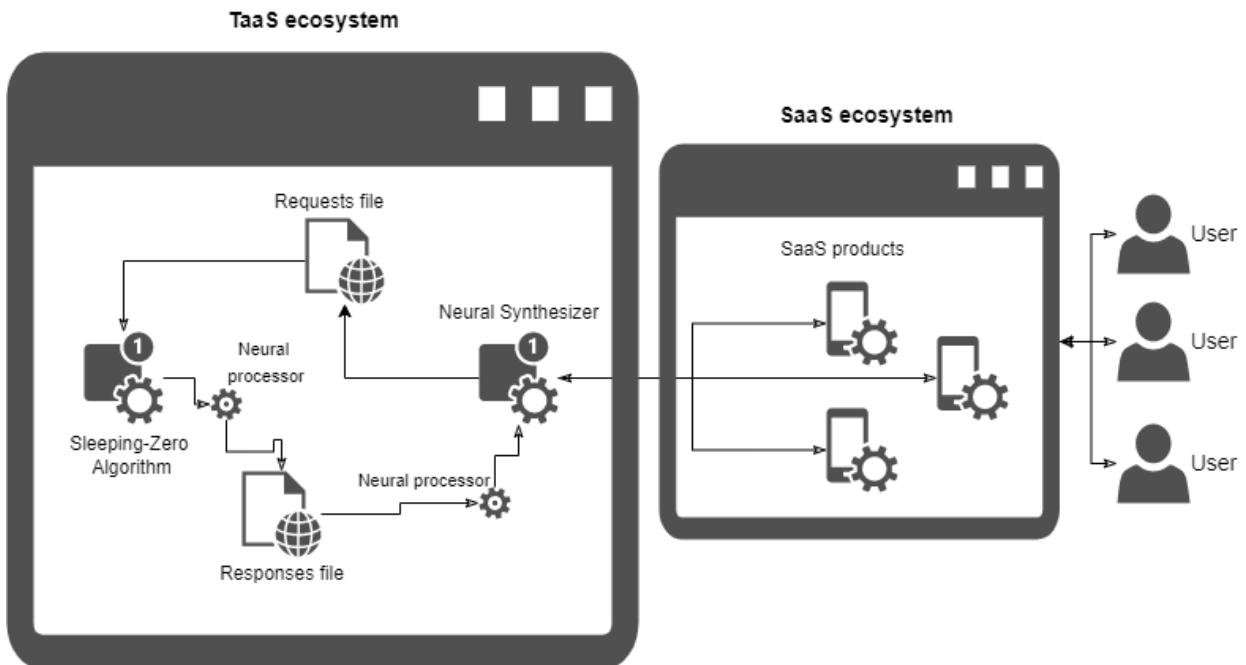

Figure 1: BeezGroup Digital Ecosystem

Sleeping-Zero algorithm

This algorithm processes the thoughts collected by the neural synthesizer and delivers the appropriate response to its neighbor, the neural synthesizer.

Requests file

This is where all data collected from the device will be stored.

Responses file

This is where all data delivered by the Sleeping-Zero algorithm will be sent.

Neural Synthesizer

This algorithm receives the thoughts from the user and sends to the sleeping-zero algorithm. The thoughts are collected in form of data from the apps, you use, the people you meet, the food you order, your bank balance, your location, your family history, your likes/dislikes and everything in between.

When feedback is delivered by the first algorithm, the synthesizer decides in which format the action of the user's thought should be accomplished. It could be playing a song based on the user's mood, recommending a call, informing a therapist, calling a doctor, ordering more food, fashion style for a given occasion, what movie to watch, which books to read (after measuring your intelligence) and how to read them, the best job for your mental capacity, the type of friends you need, when to give up, when to keep pushing, which soccer/football team to support, when to move out of your parent's house, recommending your diet/weight, your safety/security, how long to keep on electrical devices, finding the love of your life, when to start a family, (suggest yours).

Neural processor

Open for development

3.2 Design Rationale

A neural architecture, which you realize has no definite shape, was chosen for designing this hybrid algorithm.

4. DATA DESIGN

4.1 Data Description

The data collected by the hybrid algorithm is stored in its respective format, on the cloud.

4.2 Data Dictionary

Each user will have an account that holds a database of their thoughts/memories, possible responses by the user based their thoughts and expected outcomes.

5. COMPONENT DESIGN

Here, the hybrid algorithm is represented at an abstract level of detail which can be reviewed for quality.

Sleeping-Zero algorithm

> *Start:*
>   *Read data in request file*
>   *Execute neural processing*
>   *Pick/Deliver appropriate response data from the cloud database into the response file*
> *Continue:*
>   *Autonomous time interval*
> *Stop*

Table 1: Algorithm for the Sleeping-Zero

Neural Synthesizer

This algorithm describes how the request is received and how the response is delivered.

> *Start:*
>   *Read all data from user's device (identified as requests)*
>   *Send the requests to the request file*
>   *Read all responses in the response file*
>   *Execute neural processing*
>   *Deliver appropriate response to each request*
> *Continue:*
>   *Device is powered on*
> *Stop*

Table 2: Algorithm for the Neural Synthesizer