Team Converter

DEMO 1 - DOCUMENT
PIERRE DU PLESSIS

Documentation

Members

Mujaji	**Munashe**	**u18078975@tuks.co.za**
Du Plessis	Pierre	u18113941@tuks.co.za
Mangena	Nthabiseng	u18058903@tuks.co.za
Visser	Steven	u18046488@tuks.co.za
Schulze	Phillip	u18171185@tuks.co.za
Velthapu	Vedha	u18020624@tuks.co.za
Seageng	Obakeng	u17336041@tuks.co.za

Functions

onRequestPermissionsResult(int requestCode, @NonNull String[] permissions, @NonNull int[] grantResults)

This functional is essential function for requesting the user if it can use the microphone. Without this function the program will not be able to take input

startRecording()

This function will use MediaRecorder package to handle the recording and the output format

stopRecording()

This function will stop the recording and then release it. This is quite an important feature for later storing voice profile of users which Neural Network team will use to increase the formant accuracy.

getAmplitude()

This is used to measure the voice of the user in amplitude and this is then used to convert to decibels.

run() within the measure variable

This is the function that is used to check constantly If the user is speaking or not. This is responsible of animating the mouth over realtime. The handler within this function sends with a slight delay of 30 milliseconds to ensure the animation doesn't freak out by repeating the open mouth animation.

onClick(View view)

This function handles the when the button is clicked that the recording starts and stops if clicked on again.

onCreate(Bundle savedInstanceState)

This is the main function and initiates most variables and gives buttons onClick events. The window flag FLAG_KEEP_SCREEN_ON is added within this function to ensure the app keeps the phone screen on while it is using the app.

Fucntions yet to be developed

storeVoiceprofile()

This function will store the audio in a specific file which the Neural Network module will use to improve accuracy of fomant based conversion.

onClick(View view) for Formant button

This function will then use the startRecording() function and then send the data to the Neural Network module this module will then send back and integer 0-12 back to converter module of what mouth formation of the mouth will be expected to be next.

run() within the formant variable OR a use of a thread

This will be used to constantly check stream of numbers to retrieve from the neural network and then animate the mouth assigned to that integer.

Drawable XML files

The XML files within the drawable resource folder is responsible for the app's animation list that indicate what frames will be used and the duration for each frame.

These XML files are then use by the AnimationDrawable package to animate on a ImageView object.

Project Management Tool

We chose to use Clubhouse to divide the work between each other.

Link: https://app.clubhouse.io/cos-301-team-converter/

To become an Observer member contact me via email

Pierre du Plessis email : u18113941@tuks.co.za

Team Member CVs
Steven Visser

Personal Details

Full Name: Steven Visser

Cell phone: 0713319608(mobile)

E-mail: u18046488@tuks.co.za

Date of Birth: 07/01/1999

Current Position

Team Omega: Converter

Education

National Senior Certificate – IEB (matriculated 2017)

Currently a scholar at the University of Pretoria, studying a Bachelor of Science in Computer Science (3rd Year of Study)

Skills

Graduated from the Dale Carnegie course in communications.

Programming proficient in Java, C++, JavaScript, HTML, CSS, SQL & Assembly.

Interests

I am a very social person. I love to spend time both indoors and outdoors. I am an avid computer gamer. I enjoy both working with and meeting new people. I have a passion for computer programming that has manifested from an obsession I had with computers when I was in high school.

Work Experience

Retail Salesperson at Ripcurl Gateway.

House Committee member (TuksRes) for Huis Taaibos, in charge of the Wellbeing of residents.

Attitudes

"Always try to keep a cheerful outlook on things, especially during difficult times in my life. Tackle work with everything you have and always try to give 100%, there is no room for mediocrity."

Nthabiseng Tia Mangena

Current Position:

Converter in Team Omega

Interests:

Photography, Community service, Videography

Skills:

Programming in Java, C++, JavaScript, HTML, CSS.

Knitting, Violinist

Previous Work experience: N/A

Attitudes:

Able to accept criticism well, adaptable, hardworking, trustworthy

Contact Details:

Cell: 0711836230

Email: u18059903@tuks.co.za

Vedha Krishna Velthapu

PERSONAL DETAILS

Full name: Vedha Krishna Velthapu

Cell phone: 0679139160

e-mail: u18020624@tuks.co.za

Date of Birth: 01/11/1998

CURRENT POSITION

Team Omega: Converter

EDUCATION

National Senior Certificate, Sutherland High School (2017)

Currently(3rd year) – Bachelor of Science (BsC) in Computer Science

SKILLS

Programming proficient in HTML 5, CSS 3, JavaScript, PHP, jQuery, Java, C++ and Assembly

ATTITUDES

- Open-minded
- Enthusiastic
- Confident

INTERESTS

- Yoga
- Dancing

Munashe Ruth Mujaji

BIS MULTIMEDIA STUDENT munashexrm@gmail.com +27799815881

PERSONAL PROFILE

Gender: Female

Position: Omega – Converter

INTRODUCTION

My interest in the field of IT was sparked when I was introduced to the subject in high school where I chose to take it as an extra subject from Grade 10 to Grade 12, leading to a growing fascination in IT oriented careers. I now aspire to be a significant contributor to the IT industry where I hope to have a hand in both the technical and the creative aspects of society altering technologies, particularly in the gaming and data science sub-sections.

TECHNICAL KNOWLEDGE AND PROFICIENCY

- C++ Intermediate
- Javascript, jQuery Intermediate
- Java Intermediate
- SQL Intermediate
- HTML Proficient
- XML Intermediate
- CSS, Bootstrap Intermediate
- PHP Intermediate
- Microsoft Office Suite Intermediate
- Adobe Creative Cloud Beginner

APPLICATION OF TECHNICAL KNOWLEDGE

- Able to create complex websites using HTML, CSS, Javascript, PHP, and SQL

Past (university) projects include:

- Creating a fansite that provided information on a television series using HTML and CSS
- Converting an infographic into an interactive website that used elements of gamification using Javascript, HTML, and CSS
- Creating a digital portfolio using Javascript for interactivity and Adobe Photoshop to implement signs of life
- Using XML, PHP, HTML, and CSS to create a simple puzzle game similar to Pac- man
- Storing and retrieving data to and from a database using SQL, Javascript, and PHP in order to allow users to log in and out of a site, as well as view and alter their stored data o Experienced in solving problems using Java and C++
- Past (university) projects include:
- Creating a game-like program driven by user input that involves searching for habitable planets and fighting enemies, among other simple tasks, using Java
- Solving concurrency issues in situations involving multiple threads and shared resources using Java
- Creating a cryptography program that encodes and decodes user input using various given methods using C++

CORE SKILLS AND ACHIEVEMENTS

Core Skills

- Goal oriented
- Deadline Driven
- Attentive to detail
- Interpersonal communication
- Teamwork
- Resilience
- Problem solving
- Adaptable

HOBBIES AND INTERESTS

A great deal of my spare time is spent reading novels and browsing through creative works – including animated works, video games, traditional and digital art, fashion, and products of architecture and interior design.

Pierre du Plessis

Personal Details

Full Name: Pierre du Plessis

Cell phone: 0725934939(mobile)

E-mail: u18113941@tuks.co.za

Date of Birth: 02/04/1999

Current Position

Team Omega: Converter leader

Education

Currently a scholar at the University of Pretoria, studying a Bachelor of Science in Computer Science (3rd Year of Study)

Skills

Code skills

- Java
- C++
- Assembly
- HTML, CSS, JS & PHP
- Android

Core Skills

- Goal oriented
- Problem solving
- Adaptable
- Creative
- Teamwork

Interests

I am mostly interested in AI programming and graphic systems when it comes to education. My hobbies are to design with Blender, drawing and reading.

Work Experience : N/A

Phillip Schulze

Date of Birth: 23 April 1999

Contact Details

- 0730461177
- phillipstemmlar@gmail.com

Background

I was born in Dundee, KwaZulu-Natal, where I lived for 15 years. In 2014 I moved to Brits, North-West. I graduated matric in 2017 from Brits Hoërskool with 6 distinctions. In 2018 I started studying BSc Computer Science at the University of Pretoria and I am currently (2019) in my second year. I am also a resident of the Republic of Kollegetehuis, where I have been elected to the Executive Council for the 2019/2020 term.

Leadership Roles

- In my matric year (2017) I was a High School prefect.
- In 2019 I have been elected to the Executive Council of the Republic of Kollegetehuis for the 2019/2020 term, where I am the First Year Guardian and Minister of Brotherhood.
- In 2019 I was part of a mentorship program within Kollegetehuis, where I served as mentor for the first-year BSc Computer Science students from Kollegetehuis 2019.

Work Experience

- Protech PC's
- Renier du Plooy
- 0342182739
- From 8 January 2019 to 29 January 2019
  - Computer repairs (hardware component replacements)
  - Computer clean up (removal of unnecessary/unwanted software)

Programming Skills

- C++
  - Terminal applications
  - 2D Game Engines using SDL2 Library
  - C++/CLI WinForm Applications
  - multithreading
- Assembly (Intel 64-bit syntax)
  - Terminal applications
  - Basic + intermediate operations
- Java
  - Terminal applications
  - Android App Development
  - multithreading
- C#
  - Game Development using Unity game engine
  - WinForm Applications
- Delphi
  - GUI Applications + local database storage
- WebDev
  - HTML + CSS + JavaScript - Frontend
  - HTTP-requests (JSON/XML)
  - PHP + MySQL/ NodeJS + MongoDB - Backend
  - RESTful APIs
  - Web Sockets
- Android
  - Java + XML
    - HTTP-requests (JSON)
    - Asynchronous tasks

For more information of my projects I was a part of check my pdf.