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Proposal

Visual Computing and Games Technology (MSc)

Tell me mAI story

by

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1 Introduction

In this chapter, goals of the research project are described and contributors are introduced.

1.1 Goals

- establish an understanding as to why someone would want this project to be conducted
- at the core the goals are the research question
- together with an indication of the scientific insights desired to be gained
- also indicate how the project results could contribute to progress (German: Fortschritt) of society

1.2 Contributors

- team members with their qualifications

2 Related Work

In the first sub section of this chapter, an overview of the literature in our field and context is provided. In the second sub section of this chapter, our previous studies are described.

2.1 Literature

- our related work section regarding 3rd party related work

2.2 Previous Studies

- our own related work
- Bachelor thesis on convolutional neural networks in the domain of computer vision
- Project with a beta-Variational Auto-Encoder (beta-VAE)
- Exploration of speech recognition software
- Exploration of text-to-speech software
- Considerations regarding voice interfaces in lecture Advanced UI
- Lecture Digital Storytelling

3 Planned Technology and Artistic Concept

In this chapter, our concepts are described along with potential research questions. Moreover, technical risks are considered, whereby we also state our solutions to mitigate the risks.

3.1 System Design

- how is the system organized
- diagram(s) with description

3.2 Technical Development

- what do we want to develop
- regarding 1st party software
- some indication regarding non-functional requirements, e.g. code should run with and without GPU
- aspects of software craftsmanship or clean code or code quality

3.3 Technical Risks

- name and describe each considered technical risk
- also for each technical risk show how we want to mitigate it

3.4 Potential Research Questions

- formulation of research questions
- coined regarding technology
- coined regarding use cases in a scientific sense
- targeting the gaining of scientific insights

3.5 Development Goals

- regarding artistic concept
- could point out potentially reusable artistic modules (e.g. activity cards)

4 Materials and Methods

In this chapter, required hardware and applied methods are discussed.

4.1 Materials

- required material in a scientific sense
- dataset
- 3rd party software including selected plan or edition
- 3rd party software libraries
- licenses
- required hardware
- plattforms
- user accounts including selected plan or edition

4.2 Methods

- methods
- e.g. questionnaire
- e.g. metrics
- e.g. certain benchmarks

5 Project Planning

In this chapter, our initial project plan is provided, which applies at the beginning of the project and which is binding.

5.1 Work Packages

- our description of our work packages
- is of the latest update including the work packages regarding project management

5.2 Milestones

- three project phases aka. semesters
- m milestones per phase (1-to-1 relation between milestones and phases)
- ideally, each work package leads to one or more milestones
- ideally, each work package ends when all its milestones have been reached
- GANT diagram
- our work packages must be individually testable once done
- a work package may have measureable output (whichever applicable metrics), but this is optional
- Out-of-Scope: we do not need to add the resource planning
- Out-of-Scope: i.e. the estimation of work hours per work package is not in the proposal

5.3 Responsibilities

- roles with a description of the associated responsibilities
- define which team members assume which roles

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