project canvas

Project name: Point Clouds

Project owner: Henrik Thorbjørn Holmen, Mads Bjørke Vejbæk, William Krøyer Stentzer and Technical University of Denmark

Purpose
What is the intent of this project?
Why are we doing this project?

We will convert diffusion models from 2D into working with 3D data.

DM is a new technology which already has shown promising results in the 2D spaces. Which opens the door to further examine if this also shows the results in 3D space.

Scope
What does this project contain?
What does this project not contain?

Converting 2D DM into working with 3D data.

Optimization of our 3D diffusion model

Success Criteria
What do we need to achieve in order for the project to be successful?
How can the Success Criteria be measured?

A working model on 3D data.

Optimization of 3D DM with same quality using less steps

Milestones
When will we start the project and when is the final deadline ?
What are the key milestones and when will they occur?
How can the milestones be measured?

- Detailed project plan
- Prototype of first DM
- Expand prototype
- Final DM prototype

Actions
Which activities need to be executed in order to reach a certain milestone?

- Cooperation agreement
- Find research questions
- Problem definition
- Gantt Chart
- Project Canvas
- Get approval for the above
- Research differences in 2D & 3D DMs.
- PyTorch knowledge
- Dataset analysis (ethics)
- Coding/1st testing
- Start writing the report
- Evaluation
- Feedback from supervisors
- ... More to come

Outcome
What is the end result?

- A book
- A website
- An event

A well worked project rapport.

A working DM which works with 3D point clouds

Team
Who are the team members?
What are their roles in the project?

Mads Bjørke Vejbæk

William Krøyer Stentzer

Henrik Thorbjørn Holmen

Stakeholders
Who has an interest in the success of the project?
In what way are they involved in the project?

Supervisor: Johan Ziruo Ye
Supervisor: Morten Mørup

Users
Who will benefit from the outcome of the project?

Fellow students

Resources
What resources do we need in the project?
- Physical (office, building, server)
- Financial (money)
- Human (time, knowledge)

Computational power (HPC)
Library (Find It)
LLMs (Microsoft Copilot & OpenAI ChatGPT)
Supervisors (Johan Ziruo Ye & Morten Mørup)

Constraints
What are the known limitations of the project?
- Physical (office, building, server)
- Financial (money)
- Human (time, knowledge, politics)

Project time is limited
Computational complexity
Lack of knowledge

Risks
Which risks may occur during the project?
How do we treat these risks?

That the DM model we make does not work
Other university courses that may affect the time allocation.

Copyright © Project Canvas