Academic Posters

Raimond Tunnel
THEY'RE MORE LIKE "GUIDELINES"
Poster

● A1 or A0
Poster

- A1 or A0
- Portrait or Landscape
Poster

- A1 or A0
- Portrait or Landscape
- Sketch the layout (what contents you add) on paper!

You might need to sleep on this first.

Source: https://iog.wayne.edu/resources/training-materials
A1 or A0
- Portrait or Landscape
- Sketch the layout
- Max 300 words

Maybe 400 if good sections...
Be a Designer (for a Day)

● All design is re-design.
Readable from 2 Meters

- Catching and understandable from afar.
- You do not want people cluttering up.
- Some people want their personal space.
Sans-Serif for Headings

For Example Arial
For Example Verdana
For Example Roboto
For Example Helvetica
For Example Ubuntu
For Example Open Sans

Or other, more exotic choices: https://www.typewolf.com/top-10-sans-serif-fonts
Serif for Paragraphs

For example this font is **Times New Roman**.

For example this font is **Cambria**.

For example this font is **Georgia**.

For example this font is **Garamond**.

For example this font is **Lora**.

Not that important as sans-serif font usage for headings. Applies more to books. Some fonts complement other fonts better, so try different ones until it looks nice.
Alignment

Left-align vs justify

The thesis describes the development and testing of an Android video game called Shuriken Way, which was developed as a game that provides a unique player experience. The game was developed without the use of game engines. The choice of different technologies is explained and some alternative routes the development could have taken are analyzed.

Depends which one looks better on your poster. Usually justify-alignment is preferred, but left-alignment might make your text more readable at times.
Bold and Italic

**Bold** – emphasize

*Italic* – foreign terms

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Infinite

- Terrain is divided into an *infinite* number of chunks and each chunk is generated completely *independently* from other chunks.
- The algorithm must be fast enough to keep up with the user’s movement on the terrain in real time.
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vs

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- Data is presented in the map where color shows the fitness of a specific building.
- For every feature, weight can be set. This allows to modify the result based on user preferences.
- Data have been obtained from OpenStreetMap and from the official city website.
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Hyphenation

Minimize hyphenation…

… and avoid long gaps from justify.

Do it manually and find a balance!

Cubes

Each corner of a cube is given a value by the density function. A positive value means the corner is inside the ground and negative value the opposite. Each voxel is given a case number based on the sign of its corners.

A noise algorithm is a function that maps every n-dimensional vector to a deterministic, but seemingly random real number. To generate terrain, one such algorithm called Simplex noise was used.

- Allows easier implementation of algorithms to generate common natural sights.
Columned Layout

Find an intuitive way for structuring your contents.
Few Smart Colors

Have a nice palette.

https://coolors.co/
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Complex Procedural Terrains

Procedural generation is often used to offer users variety without manually creating more content. There are many algorithms for generating terrain, however most of these are limited to creating mountains and valleys. The method described in the third chapter of "GPU Gems 3" uses the marching cubes algorithm and can create complex features such as caves or bridges, which is why it was modified and implemented for the Computer Graphics program.

Density function
The landscape generation is based on a single density function. This function uses several noise volumes (3D textures) that are tiled randomly and interpolated.

Dividing the terrain
The terrain is built from two layers of blocks. For each block the marching cubes algorithm is run, resulting in a mesh that fits inside the given block.

Marching cubes
The marching cubes algorithm creates a polygonal mesh from a three-dimensional scalar field. Inside the block corner values are calculated for smaller cubes called voxels. The size and amount of the voxels determines the speed of generation as well as how detailed the resulting landscape can be.

Cubes
Each corner of a cube is given a value by the density function. A positive value indicates a positive side, a negative value indicates a negative side. The center of the cube is given a value based on the signs of its corners. This is then used to find the triangles contained by the cube from a lookup table. Each voxel can contain up to 5 triangles. Vertices that lie on these triangles and vertices are on the edges of the cube. Their location is found by calculating the point on the edge where the density is zero. These triangles and vertices will form the surface of the terrain.

Poster background – framing with contrast.

Title background, picture border – most contrast on the poster.

Text background – soothing, unsaturated.

Links, logos – standard color.
Few Smart Colors

Have a nice palette.

https://coolors.co/
Graphs

Illustrate some point / idea.

(There are more MSc than BSc)
Graphs
Illustrate some point / idea.
Readable text.
First the program does the step A. Then it checks the condition and when we have a Case 1 it will continue to do to the step B. However, when we have a Case 2, then it will do C instead.
The program creates highway junctions at the intersection points of different highways.
Because highways also have utility lines next to each other, the highway junction also needs to correctly handle the intersection of the utility lines. The closest utility pole to the intersected highway is determined and the utility line from the intersecting highway is joined to …
Pictures

Easier to explain to the people than text. Eye-catching.

Use vector images, when possible.

Be mindful of the resolution for raster images.

Figure 23. The average FPS measured every 5 seconds for every view.
Pictures

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Use vector images, when possible.

Be mindful of the resolution for raster images.

A1 format is 23.4 x 33.1 inches.

https://www.papersizes.org/a-paper-sizes.htm
Pictures

Easier to explain to the people than text. Eye-catching.

Use vector images, when possible.

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A1 format is 23.4 x 33.1 inches.

For print you want **300+ PPI** (pixels per inch).
Pictures

Easier to explain to the people than text. Eye-catching.

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A1 format is 23.4 x 33.1 inches.

For print you want 300 PPI (pixels per inch).

What resolution should this picture have?
Pictures

Easier to explain to the people than text. Eye-catching.

Use vector images, when possible.

Be mindful of the resolution for raster images.

A1 format is 23.4 x 33.1 inches.

For print you want 300 PPI (pixels per inch).

This picture should be at least:

$$22 \cdot 300 \times 15 \cdot 300 = 6600 \times 4500 \text{ (pixels)}$$
Margin / Border

Printing is not accurate.

Border (~25 mm) looks good.

My Great Project

Look at my awesome poster, it is so fancy with its 25 mm margin around it.

University of Tartu
2019

My Great Project

This is not so good poster, because it has no margin and parts of it may be cut off in print.

University of Tartu
2019

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PROBLEM
In December 2015, there was a huge natural disaster happened in Tamil Nadu, India. The major cities like Chennai and Cuddalore were attacked by floods and hurricanes. The cities were almost immersed in water and many people needed food, shelter, clothes to survive. Some people were willing to help but they couldn't able to find and communicate with the affected people. So, the "Communication" was the main problem here.

SOLUTION
Being a Software Engineering student in Estonia, I had developed a web application in 30 continuous hours which will:

1. help to connect the flood affected people with the donor who wish to help.
2. help the affected people to search and track the donors nearby.
3. help donors to retrieve the list of requests from affected people.

WORKING
1. I wish to contribute:
   Firstly, the donors have to register themselves with the things that they wish to donate. Here, the donors can also see the list of need requests from the affected people.

2. I need help:
   Secondly, the affected people have to search for donors. In the shown list of donors, select donor and make request. Then, donor can see the request in their list.

FUTURE GOAL
In less than a month, this app has been used by many people. The future goal is to add new features like calling and messaging in this application. This application will be extended to world-wide in the near future.

Note: The above mentioned website's search is restricted to places in India only and result will be the doners list within 20 kms of the searched place.
Conclusion

Concisely state the main result. 1-2 sentences.

Although, many posters do not have it.

Conclusions

While the regular implementations of these algorithms are more straightforward, disecting them in such a way that they can be executed on a per step basis and finding the required polygons for rendering were not. We hope the application will be of use for future algorithmics students and alike.

RESULTS

- A proof of concept application was made in the Unity game engine.
- The application is highly customizable allowing to change various parameters such as fog density, blur amount, the noise texture used, the scattering and extinction coefficients and many more.
- The thesis also contains benchmarks of the application.
- Many optimizations could be done in the future to improve the performance of the implementation, which were explained in the thesis.
File Format

Use the PDF format!

This is for photos. Bad poster quality.

This is for graphics. Big poster file size.

This is for editing. Needs special software to open.
Technical Tutorials

6 videos for academic poster making with InDesign
https://www.youtube.com/watch?v=PLuMRqcZhrI&list=PLpEJ97U4ZamXD7a3V0UwWZSmfWsw9rfW8

How to make an academic poster in PowerPoint
https://www.youtube.com/watch?v=_WnholbfcoM

Scientific Poster Tutorials
https://www.makesigns.com/tutorials/