Seminar *Principles of Programming Languages* TOPIC

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Abstract

Write a short abstract. Do not give to much details here, but arouse the readers interest. Especially if you write in German, you sometimes need to specify the hyphenation, as e.g. for the word thisisaverylongwordwhosehyphanationmustbedefined.

1 Introduction

Begin your paper with an introduction to your topic.

1.1 Hello

bye.

2 Preliminaries

Introduces terms used in your topic by definitions. Furthermore, it can introduce theorems on which parts of your topic base. Hint: Use paragraphs to structure your text. This is the first paragraph.

And this is the second paragraph. By the way: Do not use abbreviations as don't, it's, or can't. In Figure 1 you can see an example of a picture embedded in a figure. The picture is created using the Ti*k*Z-Library (cf. Ti*k*Z-Manual). In Table 1 you can see an example for a table.

Definition 2.1 (Name of the term) *This is how you define a term.*

Theorem 2.1 (Name of the theorem) *This is how you write a theorem. Do not forget to prove the theorem.*

Proof 2.1 *Here you write the proof of the theorem.*

Figure 1: A digraph on the left and a directed tree on the right.

In the next lines you can see some examples formulas and other constructs, which are useful in the math mode. A very useful webpage to find symbols and the packages to include is Detexify[2]. $\Sigma, \sigma, \ldots, \varphi, \xi$ You can use the math mode in the text, e.g. $1 \neq 0$, or write it in a whole line:

$$\begin{vmatrix} a_{1,1} & \ldots & a_{1,n} \\ & \vdots & \\ a_{n,1} & \ldots & a_{n,n} \end{vmatrix} = \begin{cases} \sum_{\sigma \in S_n} \left(\operatorname{sgn}(\sigma) \prod_{i=1}^{n} a_{i,\sigma(i)} \right) & \text{, if } \mathit{True} \\ \frac{42}{1} & \text{, otherwise} \end{cases}$$

Table 1: This a a table.

	align left	centered	align right
row 1	box 1.1	box 1.2	box 1.3
row 2	box 2.1		box 2.2
row 2	box 2		

3 Topic

This section concerns the main topic. In the following you can see a small illustration of how to use itemizings and enumerations.

- Point 1.
- Point 2.

1. Point 1.
2. Point 2.
   I) Point 1.
   II) Point 2.

1. Point 1.
2. Point 2.

Term one: Description of term one.

Term two: Description of term two.

In Algorithm 1 you can see how we define an algorithm.

```
Data: this text
Result: how to write algorithm with LaTeX2e
initialization;
while not at end of this document do
    read current;
    if understand then
        go to next section;
        current section becomes this one;
    else
        go back to the beginning of current section;
    end
end
```

Algorithm 1: How to write algorithms

3.1 Example

Give an example to illustrate the idea of your topic. Import images in the following way. Store the images in a separate folder as precasted in our template.

4 Conclusion

Give a conclusion on your topic. Give a few sentences to summarize the topic. If possible, point out the quality of the result and give a small prospect of subsequent works.

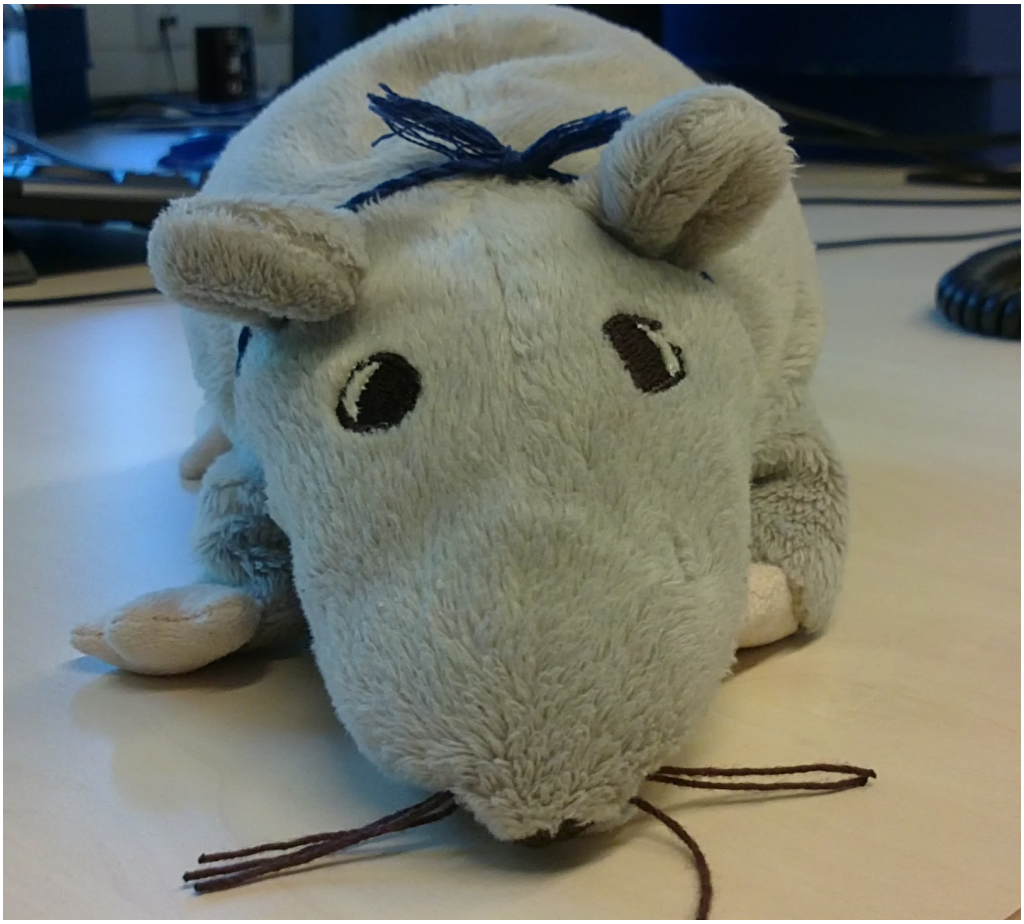

Figure 2: Proseminar supervisor's pet.