SHOULD BE REPLACED ON REQUIRED TITLE PAGE

Instruction

1. Open needed docx template (folder "title"/<your department or bach if bachelor student>.docx).

2. Put Thesis topic, supervisor's and your name in appropriate places on both English and Russian languages.

3. Put current year (last row).

4. Convert it to "title.pdf," replace the existing one in the root folder.

Contents

List of Tables

List of Figures

Abstract

abstract . . .

Chapter 1

Introduction

I   Spacing & Type

A.   Creating a Subsection

1)   Creating a Subsubsection:

2)   Creating a Subsubsection:

3)   Creating a Subsubsection:

a)   This is a heading level below subsubsection: And this is a quote:

Hello, here is some text without a meaning. This text should show what a printed text will look like at this place. If you read this text, you will get no information. Really? Is there no information? Is there a difference between this text and some nonsense like "Huardest gefburn"? Kjift – not at all! A blind text like this gives you information about the selected font, how the letters are written and an impression of the look. This text should contain all

letters of the alphabet and it should be written in of the original language. There is no need for special content, but the length of words should match the language.

Fig. 1. One kernel at x_s (dotted kernel) or two kernels at x_i and x_j (left and right) lead to the same summed estimate at x_s. This shows a figure consisting of different types of lines. Elements of the figure described in the caption should be set in italics, in parentheses, as shown in this sample caption.

This is a table:

TABLE I
This Is a Table Example

A	B	C
a1	b1	c1
a2	b2	c2
a3	b3	c3
a4	b4	c4

The package "upgreek" allows us to use non-italicized lower-case greek letters. See for yourself: $\upbeta$, $\boldsymbol{\upbeta}$, β, $\boldsymbol{\beta}$. Next is a numbered equation:

$$\|\mathbf{X}\|_{2,1} = \underbrace{\sum_{j=1}^{n} f_j(\mathbf{X})}_{\text{convex}} = \sum_{j=1}^{n} \|\mathbf{X}_{\cdot,j}\|_2 \tag{1.1}$$

The reference to equation (1.1) is clickable.

II Theorems, Corollaries, Lemmas, Proofs, Remarks, Definitions,and Examples

Theorem 1. Hello, here is some text without a meaning. This text should show what a printed text will look like at this place. If you read this text, you will get no information. Really? Is there no information? Is there a difference between this text and some nonsense like "Huardest gefburn"? Kjift – not at all! A blind text like this gives you information about the selected font, how the letters are written and an impression of the look. This text should contain all letters of the alphabet and it should be written in of the original language. There is no need for special content, but the length of words should match the language.

Proof. I'm a (very short) proof. □

Lemma 1. I'm a lemma.

Corollary 1. I include a reference to Thm. 1.

Proposition 1. I'm a proposition.

Remark. I'm a remark.

Definition 1. I'm a definition. I'm a definition. I'm a definition. I'm a definition. I'm a definition. I'm a definition. I'm a definition. I'm a definition. I'm a definition. I'm a definition. I'm a definition.

Example. I'm an example.

III   Section with linebreaks in the name

Hello, here is some text without a meaning. This text should show what a printed text will look like at this place. If you read this text, you will get no information. Really? Is there no information? Is there a difference between this text and some nonsense like "Huardest gefburn"? Kjift – not at all! A blind text like this gives you information about the selected font, how the letters are written and an impression of the look. This text should contain all letters of the alphabet and it should be written in of the original language. There is no need for special content, but the length of words should match the language.

This is the second paragraph. Hello, here is some text without a meaning. This text should show what a printed text will look like at this place. If you read this text, you will get no information. Really? Is there no information? Is there a difference between this text and some nonsense like "Huardest gefburn"? Kjift – not at all! A blind text like this gives you information about the selected font, how the letters are written and an impression of the look. This text should contain all letters of the alphabet and it should be written in of the original language. There is no need for special content, but the length of words should match the language.

Chapter 2

Literature Review

I Ethereum Virtual Machine

Ethereum is a decentralized system, and at its core, the Ethereum Virtual Machine (EVM) is an essential component of the Ethereum blockchain. The EVM serves as the computational heart of the Ethereum network, enabling the execution of smart contracts and providing the foundation for a wide array of decentralized applications.

In the context of smart contract execution, it's important to mention the concept of gas limit. Gas limit is a critical aspect of Ethereum's execution model. Each operation and computation on the Ethereum Virtual Machine consumes a certain amount of gas, which is a measure of computational work. The gas limit is a cap set by the user or the entity initiating a contract execution, and it represents the maximum amount of gas they are willing to spend for that operation.

Gas limit, the EVM's stack-based architecture, and the wide set of available operations allow it to efficiently and securely for miners execute these

smart contracts, granting it the status of a Turing-complete machine [1]. This level of computational flexibility empowers developers to create sophisticated programs.

II Existing EVM languages

According to the official Ethereum documentation [2] only four languages for EVM exist: Solidity, Vyper, Yul and Fe. However, other attempts to create language for EVM are known [3]. Although there are many EVM languages, according to sOmEtHiNg only two of them are widely used: Solidity and Vyper.

A. Solidity

B. Vyper

III Market Research

IV Elixir

V Compiler construction

VI Conclusion

Chapter 3

Methodology

. . .

Referencing other chapters 2, 3, 4, 5 and 6

TABLE II
Simulation Parameters

A	B
Parameter	Value
Number of vehicles	$|\mathcal{V}|$
Number of RSUs	$|\mathcal{U}|$
RSU coverage radius	150 m
V2V communication radius	30 m
Smart vehicle antenna height	1.5 m
RSU antenna height	25 m
Smart vehicle maximum speed	v_{max} m/s
Smart vehicle minimum speed	v_{min} m/s
Common smart vehicle cache capacities	$[50, 100, 150, 200, 250]$ mb

A	B
Common RSU cache capacities	$[5000, 1000, 1500, 2000, 2500]$ mb
Common backhaul rates	$[75, 100, 150]$ mb/s

Fig. 2. One kernel at x_s (dotted kernel) or two kernels at x_i and x_j (left and right) lead to the same summed estimate at x_s. This shows a figure consisting of different types of lines. Elements of the figure described in the caption should be set in italics, in parentheses, as shown in this sample caption.

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Chapter 4

Implementation

TABLE III
Simulation Parameters

A	B
Parameter	Value
Number of vehicles	$\lvert \mathcal{V} \rvert$
Number of RSUs	$\lvert \mathcal{U} \rvert$
RSU coverage radius	150 m
V2V communication radius	30 m
Smart vehicle antenna height	1.5 m
RSU antenna height	25 m
Smart vehicle maximum speed	v_{max} m/s
Smart vehicle minimum speed	v_{min} m/s
Common smart vehicle cache capacities	$[50, 100, 150, 200, 250]$ mb
Common RSU cache capacities	$[5000, 1000, 1500, 2000, 2500]$ mb
Common backhaul rates	$[75, 100, 150]$ mb/s

Fig. 3. One kernel at x_s (dotted kernel) or two kernels at x_i and x_j (left and right) lead to the same summed estimate at x_s. This shows a figure consisting of different types of lines. Elements of the figure described in the caption should be set in italics, in parentheses, as shown in this sample caption.

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Chapter 5

Evaluation and Discussion

TABLE IV
Simulation Parameters

A	B
Parameter	Value
Number of vehicles	$|\mathcal{V}|$
Number of RSUs	$|\mathcal{U}|$
RSU coverage radius	150 m
V2V communication radius	30 m
Smart vehicle antenna height	1.5 m
RSU antenna height	25 m
Smart vehicle maximum speed	v_{max} m/s
Smart vehicle minimum speed	v_{min} m/s
Common smart vehicle cache capacities	$[50, 100, 150, 200, 250]$ mb
Common RSU cache capacities	$[5000, 1000, 1500, 2000, 2500]$ mb
Common backhaul rates	$[75, 100, 150]$ mb/s

Fig. 4. One kernel at x_s (dotted kernel) or two kernels at x_i and x_j (left and right) lead to the same summed estimate at x_s. This shows a figure consisting of different types of lines. Elements of the figure described in the caption should be set in italics, in parentheses, as shown in this sample caption.

. . .

Chapter 6

Conclusion

TABLE V
Simulation Parameters

A	B
Parameter	Value
Number of vehicles	$\lvert \mathcal{V} \rvert$
Number of RSUs	$\lvert \mathcal{U} \rvert$
RSU coverage radius	150 m
V2V communication radius	30 m
Smart vehicle antenna height	1.5 m
RSU antenna height	25 m
Smart vehicle maximum speed	v_{max} m/s
Smart vehicle minimum speed	v_{min} m/s
Common smart vehicle cache capacities	$[50, 100, 150, 200, 250]$ mb
Common RSU cache capacities	$[5000, 1000, 1500, 2000, 2500]$ mb
Common backhaul rates	$[75, 100, 150]$ mb/s

Fig. 5. One kernel at x_s (dotted kernel) or two kernels at x_i and x_j (left and right) lead to the same summed estimate at x_s. This shows a figure consisting of different types of lines. Elements of the figure described in the caption should be set in italics, in parentheses, as shown in this sample caption.

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Bibliography cited

[1] V. Buterin. "Ethereum whitepaper." (2014), [Online]. Available: https: //ethereum.org/en/whitepaper (visited on 10/25/2023).

[2] "Smart contract languages." (2022), [Online]. Available: https : / / ethereum.org/en/developers/docs/smart-contracts/languages/.

[3] "Github: Curated list of programming languages for blockchains." (2023), [Online]. Available: https://github.com/s-tikhomirov/smart-contract-languages#ethereum.

Appendix A

Extra Stuff

Hello, here is some text without a meaning. This text should show what a printed text will look like at this place. If you read this text, you will get no information. Really? Is there no information? Is there a difference between this text and some nonsense like "Huardest gefburn"? Kjift – not at all! A blind text like this gives you information about the selected font, how the letters are written and an impression of the look. This text should contain all letters of the alphabet and it should be written in of the original language. There is no need for special content, but the length of words should match the language.

Appendix B

Even More Extra Stuff

Hello, here is some text without a meaning. This text should show what a printed text will look like at this place. If you read this text, you will get no information. Really? Is there no information? Is there a difference between this text and some nonsense like "Huardest gefburn"? Kjift – not at all! A blind text like this gives you information about the selected font, how the letters are written and an impression of the look. This text should contain all letters of the alphabet and it should be written in of the original language. There is no need for special content, but the length of words should match the language.