

Chapter	Section	From where? Knowledge-Input      Question-Input		How? Method	What? Target-Description		
0	IT-based Automatic Text Summarization with the use of Text Generation Methods	State of the Art and design of a prototype					
1	Introduction	1.1	Structure of this Thesis	<ul style="list-style-type: none"><li>1. Presentation of the state of the art of Text Generators and Text Summarizers.</li><li>2. Study of the relevant aspects of Text Generation and programming of an IT-based Text Summarizer prototype.</li></ul> <ul style="list-style-type: none"><li>1. Brief overview over the thesis</li><li>2. Short but detailed introduction to all Chapters of this thesis.</li></ul> <ul style="list-style-type: none"><li>1. Presentation of all relevant aspects that belong to Text Summarization</li></ul> <ul style="list-style-type: none"><li>1. Research on the current and planned Text Summarizer, in the field of word processing.</li></ul> <ul style="list-style-type: none"><li>1. Research on the relevant aspects of state of the art research chronologically at different time steps for this topic.</li></ul>	<ul style="list-style-type: none"><li>1. State of the art technical elaboration.</li><li>2. Programming of a prototypical algorithm that generates a summary for a given review input</li></ul> <ul style="list-style-type: none"><li>1. Pointing out the fundamental points</li><li>2. Answer to the question, why my bachelor thesis makes sense and what is my motivation for</li></ul> <ul style="list-style-type: none"><li>1. Zoom-In introduction from Artificial Intelligence into Text Summarization</li></ul> <ul style="list-style-type: none"><li>1. Explanation through an interesting easy introduction.</li></ul> <ul style="list-style-type: none"><li>1. Description of the application-oriented models for this topics using formulas and explanations.</li></ul>		
2	Evolutionary View on the State of the Art	1.2	Machine Learning				
		1.3	Case study				
2	Text Generation Concepts	2.1		<ul style="list-style-type: none"><li>1. What are current Text Summarizer systems capable of?</li><li>2. Where are current application fields?</li></ul> <ul style="list-style-type: none"><li>1. Which historical achievements are necessary to know for understanding the advanced concepts of Text Generation?</li></ul>	<ul style="list-style-type: none"><li>1. Literature research of the Text Generation history (~60 years).</li><li>2. Literature research of current papers</li></ul> <ul style="list-style-type: none"><li>1. Research on the relevant aspects of state of the art research chronologically at different time steps for this topic.</li></ul>	<ul style="list-style-type: none"><li>1. Presentation of the history of Text Generation in the form of a chronological sequence.</li><li>2. Use of the first technologies</li></ul> <ul style="list-style-type: none"><li>1. Description of the application-oriented models for this topics using formulas and explanations.</li></ul>	
		2.2	Advanced Approaches for Text Generation	<ul style="list-style-type: none"><li>• [1]</li><li>• [2..1]</li><li>• Books</li></ul>	<ul style="list-style-type: none"><li>1. What are current Text Summarizer systems capable of?</li><li>2. Where are current application fields?</li></ul>	<ul style="list-style-type: none"><li>1. Literature research of the Text Generation history (~40 years).</li><li>2. Literature research of current papers</li></ul>	<ul style="list-style-type: none"><li>1. Presentation of the history of Text Generation in the form of a chronological sequence.</li><li>2. Use of the first technologies</li></ul>
2	Text Summarization Concepts	2.3		<ul style="list-style-type: none"><li>• [1]</li><li>• Paper Research</li></ul>	<ul style="list-style-type: none"><li>1. Which historical achievements are necessary to know for understanding the advanced concepts of Text Generation?</li></ul>	<ul style="list-style-type: none"><li>1. Description of the application-oriented models for this topics using formulas and explanations.</li></ul>	
		2.4	Advanced Approaches for Text Summary	<ul style="list-style-type: none"><li>• [1], [[2..1], 2.2], [2..3]</li><li>• Books</li></ul>	<ul style="list-style-type: none"><li>1. What are current Text Summarizer systems capable of?</li><li>2. Where are current application fields?</li></ul>	<ul style="list-style-type: none"><li>1. Literature research of the Text Generation history (~40 years).</li><li>2. Literature research of current papers</li></ul>	<ul style="list-style-type: none"><li>1. Presentation of the history of Text Summary in the form of a chronological sequence.</li><li>2. Use of the first technologies</li></ul>
3	Objective	3.1		<ul style="list-style-type: none"><li>• [0]</li><li>• [1]</li><li>• [2]</li></ul>	<ul style="list-style-type: none"><li>1. What should my prototype be able to achieve with given resources?</li><li>2. Which output can be expected in the best case?</li></ul>	<ul style="list-style-type: none"><li>1. Explanation of the scope of my prototype.</li><li>2. Collection and classification of requirements for the algorithm and its output.</li></ul>	
		3.2	Technical concept	<ul style="list-style-type: none"><li>• [2]</li><li>• [3..1]</li><li>• Online Research</li></ul>	<ul style="list-style-type: none"><li>1. How is my prototype structured?</li><li>2. Which algorithms do I use?</li><li>3. Which processes does the data go through?</li><li>4. How is the data processed?</li></ul>	<ul style="list-style-type: none"><li>1. Technical concept completed.</li><li>2. The prototype is modelled without IT reference on the basis of various submodels.</li><li>3. The individual processes are modelled without a concrete implementation proposal.</li><li>4. Data processing visualized</li></ul>	<ul style="list-style-type: none"><li>1. Explanation of the scope of my prototype.</li><li>2. Collection and classification of requirements for the algorithm and its output.</li></ul>
	Implementation	3.3		<ul style="list-style-type: none"><li>• [3..1]</li><li>• [3..2]</li><li>• Online Courses</li></ul>	<ul style="list-style-type: none"><li>1. Which technologies do I use for my prototype:<ul style="list-style-type: none"><li>- "What Python libraries and IDE?"</li><li>- "What are the HW &amp; SW requirements?"</li></ul></li></ul>	<ul style="list-style-type: none"><li>1. Creation of an IT concept in the form of a description of the necessary technical means using sub-models</li></ul>	<ul style="list-style-type: none"><li>1. Creation of an IT concept in the form of a description of the necessary technical means using sub-models</li></ul>
		3.4	Evaluation	<ul style="list-style-type: none"><li>• [3..1]</li><li>• [3..2]</li><li>• [3..3]</li><li>• Paper Research</li></ul>	<ul style="list-style-type: none"><li>1. How is the output of the prototype evaluated, e.g. with which metrics?</li><li>2. How to evaluate the quality of the output?</li><li>3. How can the algorithm be improved?</li></ul>	<ul style="list-style-type: none"><li>1. Target/actual comparison of the requirements with the output of the prototype.</li><li>2. Comparison with related work and metrics.</li><li>3. Research on potential improvements of the algorithm.</li></ul>	<ul style="list-style-type: none"><li>1. Evaluation and analysis of the result based on grammatical correctness and meaning.</li><li>2. Compare better results with my result.</li><li>3. Evaluate possible optimization techniques (Chapter 2) for my prototype.</li></ul>
4	Transferable knowledge	4.1		By which elements could my project be modularly extended to produce a different or better result?	Generalization from the results obtained so far.	Placing the evaluation results in a social context.	