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# hbspy - A Python Interface to the Hierarchical B-spline C++ Library

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A senior capstone project submitted to the faculty of  
Brigham Young University  
in partial fulfillment of the requirements for the degree of

Bachelor of Science

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## ABSTRACT

hbspy - A Python Interface to the Hierarchical B-spline C++ Library

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Bachelor of Science

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.

Keywords: python, C++, algebraic geometry, B-splines

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## 1 INTRODUCTION

### 1.1 BACKGROUND

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### 1.2 MOTIVATION

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## 1.3 CONTEXT

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## 2 METHODS

### 2.1 SWIG

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### 2.2 BOOST.PYTHON

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## 2.3 CYTHON

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.

## 2.4 XDRESS

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### 3 RESULTS AND DISCUSSION

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### 4 CONCLUSION

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