



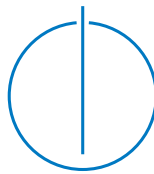
FAKULTÄT FÜR INFORMATIK

TECHNISCHE UNIVERSITÄT MÜNCHEN

Bachelor's Thesis in Informatics

# **Design and Evaluation of a Vascular Simulator for Medical Education**

Liesa Weigert





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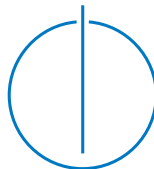
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## **Design and Evaluation of a Vascular Simulator for Medical Education**

## **Design und Evaluation eines Vaskulären Simulators für Medizinischen Ausbildung**

Author:	Liesa Weigert
Supervisor:	Prof. Dr. Nassir Navab
Advisor:	Philipp Stefan
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I assure the single handed composition of this bachelor's thesis in informatics only supported by declared resources.

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Liesa Weigert

## Acknowledgments

# Abstract

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**Part I.**

**Introduction**



# 1. Introduction

## 1.1. Necessity of Simulators

## 1.2. Existing Vascular Simulators

## 1.3. Proposed Project

## 1.4. Section

Citation test [Lam94].

### 1.4.1. Subsection

See Figure 1.1.



Figure 1.1.: An example for a figure.

## 1.5. Section

See Table 1.1, Figure 1.2, Figure 1.3, Figure 1.4.

Table 1.1.: An example for a simple table.

A	B	C	D
1	2	1	2
2	3	2	3

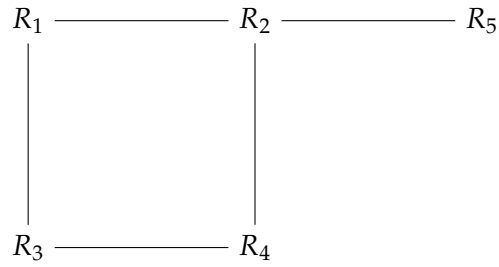


Figure 1.2.: An example for a simple drawing.

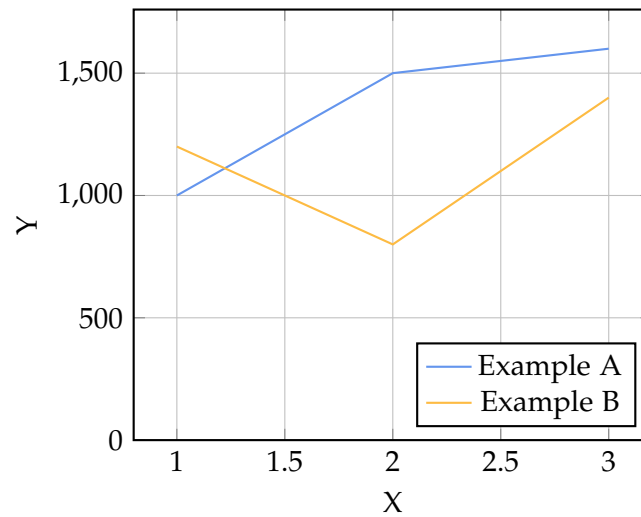


Figure 1.3.: An example for a simple plot.

```
SELECT * FROM tbl WHERE tbl.str = "str"
```

Figure 1.4.: An example for a source code listing.

## **Part II.**

# **Knowledge Acquisition and Representation**

## **2. Related Work**

### **2.1. Medical Teaching Methods**

### **2.2. Critical Task Analysis**

### **2.3. Think-Aloud**

### **2.4. Validity and Reliability**

#### **2.4.1. The 1982 Definition of Validity**

#### **2.4.2. Today's Approach**

Deine Mudda[Lam94]

## **3. Data Aquisition**

### **3.1. Interview Process**

### **3.2. Surgery Visit**

### **3.3. Data Representation**

#### **3.3.1. Procedure**

#### **3.3.2. Analysis**

**Part III.**

**Testing Process**

## **4. Testing Process**

### **4.1. Process Specification**

### **4.2. Durchfuehrung**

### **4.3. Auswertung**

## **5. Validation**

### **5.1. Validity of Test Method**

### **5.2. Reliability**



**Part IV.**

**Conclusion**

## **6. Conclusion and Future Work**

### **6.1. Discussion**

### **6.2. Future Work**

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# Bibliography

- [Lam94] L. Lamport. *LaTeX : A Documentation Preparation System User's Guide and Reference Manual*. Addison-Wesley Professional, 1994.