Wrocław University of Science and Technology

Faculty of Information and Communication Technology
Field of study: **ARTIFICIAL INTELLIGENCE**

Master's Thesis

TOPIC OF THE MASTER'S THESIS

Name Surname

keywords:

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Abstract

Streszczenie

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1 Introduction

Figure 1.1: Portrait purportedly of Bayes used in a 1936 book, but it is doubtful whether the portrait is actually of him. No earlier portrait or claimed portrait survives.

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1.2 Second section

1.2.1 First subsection

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2 Theoretical Background

Bishop Thomas Bayes was born in Tunbridge Wells and was a clergyman as well as an amateur scientist and a mathematician. He studied logic and theology at Edinburgh University and was elected Fellow of the Royal Society in 1742. During the 18th century, issues regarding probability arose in connection with gambling and with the new concept of insurance. One particularly important problem concerned so-called inverse probability. A solution was proposed by Thomas Bayes in his paper 'Essay towards solving a problem in the doctrine of chances', which was published in 1764, some three years after his death, in the Philosophical Transactions of the Royal Society. In fact, Bayes only formulated his theory for the case of a uniform prior, and it was Pierre-Simon Laplace who independently rediscovered the theory in general form and who demonstrated its broad applicability. [1]

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3 Methods

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3.2 Second section

3.2.1   First subsection

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4 Experiments

a	b	c	p(a, b, c)
0	0	0	0.192
0	0	1	0.144
0	1	0	0.048
0	1	1	0.216
1	0	0	0.192
1	0	1	0.064
1	1	0	0.048
1	1	1	0.096

Table 4.1: The joint distribution over three binary variables.

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5 Results

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6 Conclusions

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Bibliography

[1] C. M. Bishop. *Pattern Recognition and Machine Learning (Information Science and Statistics)*. Springer-Verlag, Berlin, Heidelberg, 2006.

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