

OBJECT RECOGNITION AND TRACKING BY DEEP LEARNING

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in partial fulfilment of the requirements of the degree of
Master of Engineering

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A great dedication goes here.

Abstract

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Resume

ACKNOWLEDGEMENTS

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TABLE OF CONTENTS

Abstract	iii
Resume	iii
Acknowledgments	iii
LIST OF FIGURES	viii
LIST OF TABLES	ix
Chapter 1: Introduction	1
1.1 Motivation	1
1.2 Thesis Overview	1
Chapter 2: Previous Approaches	3
2.1 Section	3
2.1.1 Example Subsection	3
Chapter 3: Results	5
Chapter 4: Discussion	6
Chapter 5: Experiments and Analysis	7

Chapter 6: Conclusions and Future Work	8
Appendix A: Experimental Equipment	10
Appendix B: Data Processing	11
References	12
Vita	13

LIST OF TABLES

1.1	This is an example Table.	1
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LIST OF FIGURES

1.1	This is an example Figure.	2
2.1	This is another example Figure, rotated to landscape orientation.	4

SUMMARY

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CHAPTER 1

INTRODUCTION

1.1 Motivation

This is a section in Chapter 2.

1.2 Thesis Overview

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Table 1.1: This is an example Table.

x	f(x)	g(x)
1	6	4
2	6	3
3	6	2
4	6	2

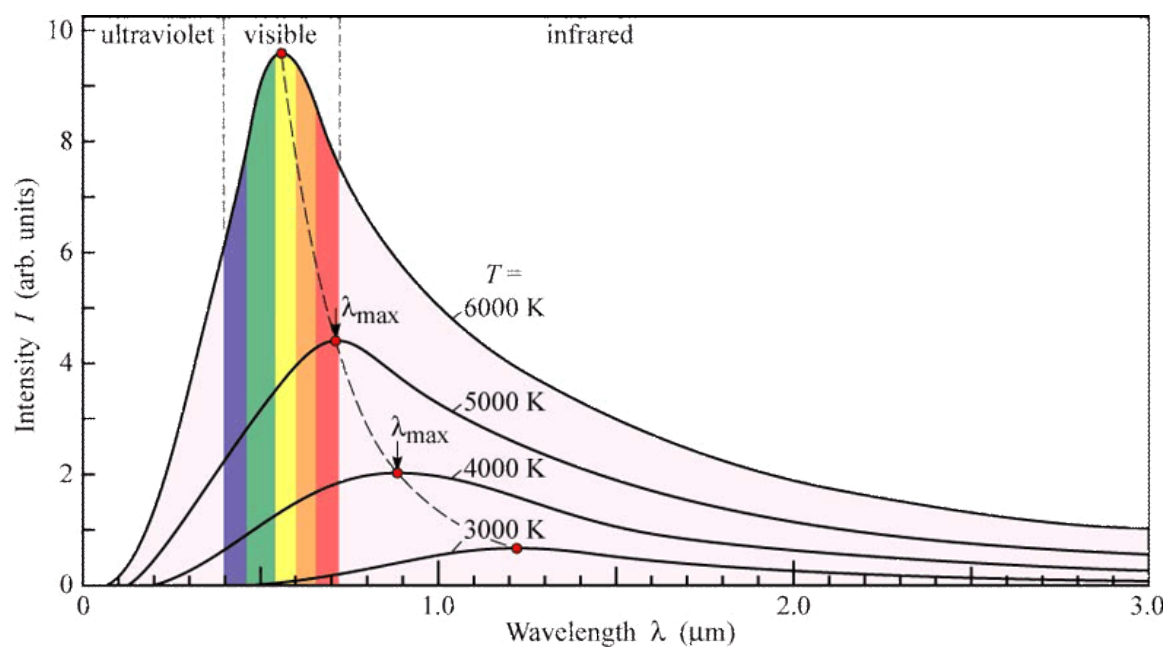


Figure 1.1: This is an example Figure.

CHAPTER 2

PREVIOUS APPROACHES

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2.1 Section

This is a section in Chapter 2.

2.1.1 Example Subsection

This is a subsection in Chapter 2.

Example Subsubsection

This is a subsubsection in Chapter 2.

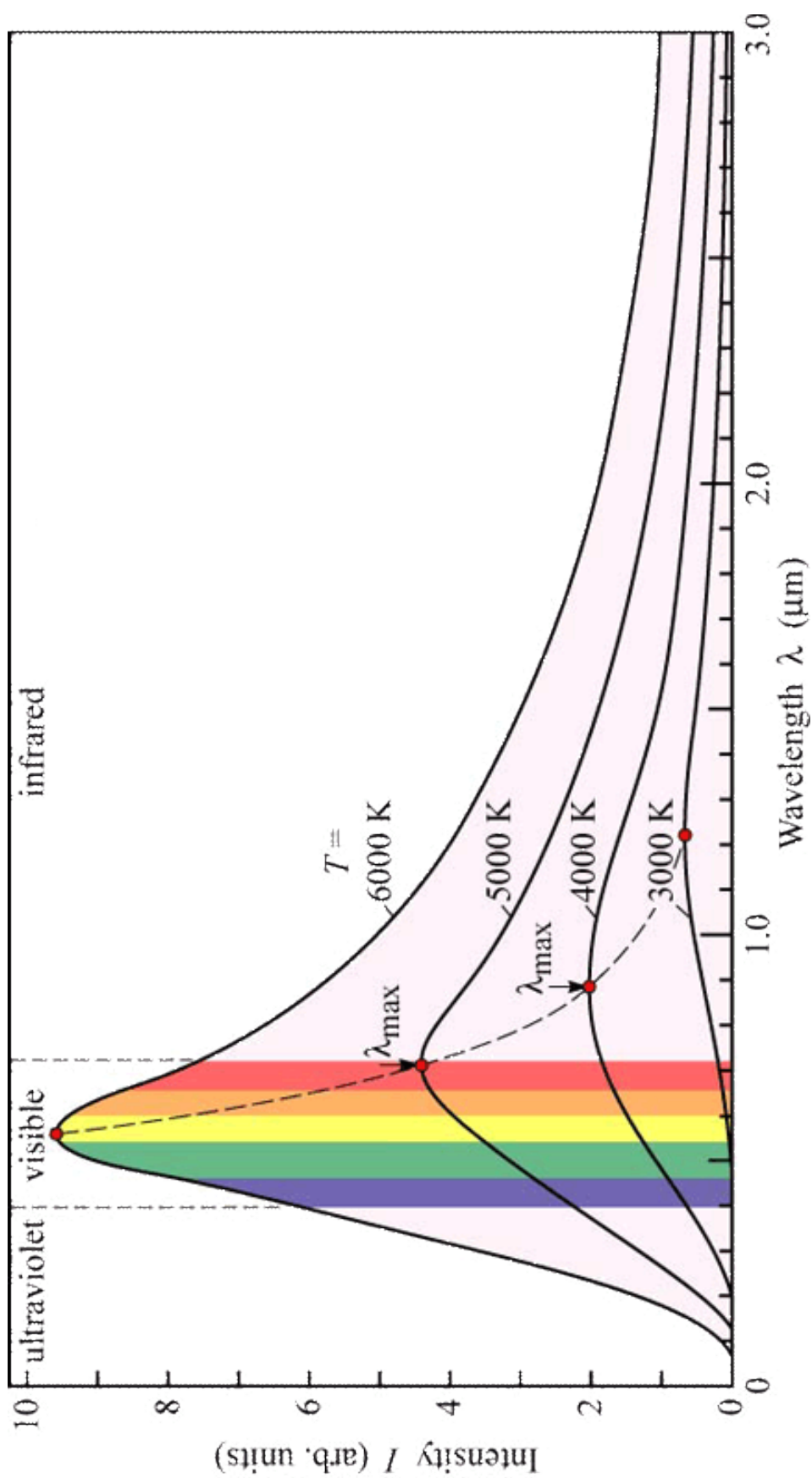


Figure 2.1: This is another example Figure, rotated to landscape orientation.

CHAPTER 3

RESULTS

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CHAPTER 4

DISCUSSION

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CHAPTER 5

EXPERIMENTS AND ANALYSIS

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CHAPTER 6

CONCLUSIONS AND FUTURE WORK

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Appendices

APPENDIX A

EXPERIMENTAL EQUIPMENT

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APPENDIX B

DATA PROCESSING

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REFERENCES

- [1] B. W. Kernighan and D. M. Ritchie, *The C Programming Language Second Edition*. Prentice-Hall, Inc., 1988.
- [2] G. P. Burdell, *Myths and Their Origins Plus Some Extra Words to Make the Title Really Long and Extend to the Next Line*. Real Books, Inc., 2017.
- [3] A. Einstein, B. Podolsky, and N. Rosen, “Can quantum-mechanical description of physical reality be considered complete?” *Phys. Rev.*, vol. 47, pp. 777–780, 10 1935.

VITA

Vita may be provided by doctoral students only. The length of the vita is preferably one page. It may include the place of birth and should be written in third person. This vita is similar to the author biography found on book jackets.