THESIS TITLE

UNIVERSITY OF JUBA

SCHOOL OF COMPUTER SCIENCE AND INFORMATION TECHNOLOGY

By

Ariik Abedenego
Index No: 12-CC-1

Nunas Eluzai
Index No: 12-CC-1027

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Supervisor: MSc. Software Eng. Steve Jerry A. Thompson

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THE ORIGINAL DECLARATION OF THESIS

We, Steve Jerry and Steve Thompson, certify that this thesis work titled, “Malicious Smart Contracts Detection In Blockchain” is my own work.The work has not been bestowed elsewhere for assessment.

The material that has been used from different sources it’s been properly acknowledged/ referred.

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Date:

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Date:

THESIS APPROVAL

This is to certify that the project report entitled **Malicious Smart Contracts Detection In Blockchain** submitted by **Steve Jerry** bearing the **Index No: 12-CC-1027** and **Steve Thompson** bearing the **Index No: 12-CC-1028**, in completion of their final project work under the guidance of **Steve Jerry A. Thompson** during the period of September 2020 - June 2021, is accepted for the project report submission in partial fulfillment of the requirements for the award of the degree of Bachelor of Science in Computer Science in the Department of Computer Science, University of Juba, Central Equatoria State, during the academic year 2020-2021.

Signed:

Date:

DEDICATION

For my cousin Kara

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LIST OF ACRONYMS

STAR Labs Scientific and Technological Advanced Research Laboratories

UV ultraviolet

SUMMARY

There has been much speculation on whether or not efficient conversion of solar light to energy will have a breakthrough which enables high efficiency, low cost, and enabling of other capabilities previously not thought possible, whether through cellular means, semiconductor based, or otherwise. This work aims to answer some of the questions surrounding these matters.

CHAPTER 1

INTRODUCTION AND BACKGROUND

1.1 Stars

It is common knowledge that the star closest to Earth is the Sun, and also that the Sun is yellow. It is this yellow sunlight which is interesting for some of its properties [1]. For instance, plants, algae, and cyanobacteria convert this light into energy via photosynthesis. In Figure 1.1 is a photo of a galaxy which contains many stars.

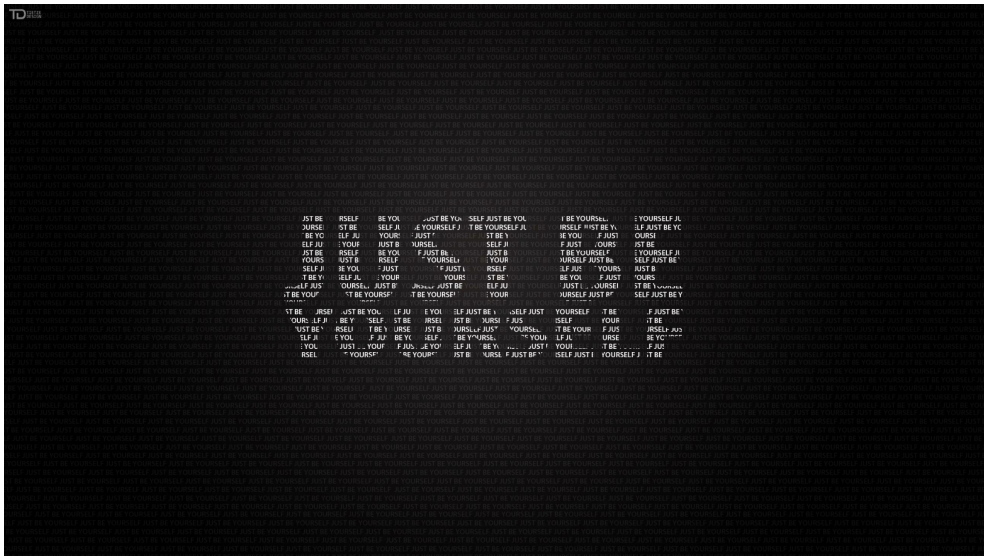

Figure 1.1: Barred spiral galaxy NGC 1300 photographed by Hubble telescope. While the galaxy in the photo is not our sun, it does emit light, much like our sun. Image credit: NASA.

The stars in the sky are of particular interest to the aptly named Scientific and Technological Advanced Research Laboratories (STAR Labs), which in many recent experiments has shown promising results in converting this energy in a non-photoelectric sense into usable energy [2]. Interestingly, STAR Labs has theorized that the famous superhero known as "Superman" converts the light from our sun, which grants his fantastic abilities. There are many methods in industry for converting the sun's energy (of about $1000\,\mathrm{W/m^2}$) into

electrical energy. Some sites which generate renewable energy are shown in Table 1.1.

Table 1.1: Renewable energy installations located in a few different countries

installation	type	capacity (GW)	location
Longyangxia Dam	photovoltaic	0.85	China
Gansu Wind Farm	wind	6	China
Sihwa Lake	tidal	0.254	South Korea

CHAPTER 2
METHODOLOGY

The process of data collection began with analysis of the physical principles underlying optical light emission. For illustration purposes, see Figure 2.1.

2.1 The Various Types of Light

Depending on the energy of a photon, it may be referred to as "light" (in the case of optical photons) or as something else – for example, a gamma ray. By convention, there are many names for these particles.

2.1.1 Low-energy photons

The lowest energy electromagnetic radiation is carried by radio waves.

2.1.2 Intermediate-energy photons

These include several types of radiation, including the usually-harmful ultraviolet (UV).

Microwaves

Microwaves have wavelengths on the order of 1×10^{-2} m, or a few cm.

Visible light

Visible light is that which is detectable by the human eye, with wavelengths about 380 nm to 750 nm.

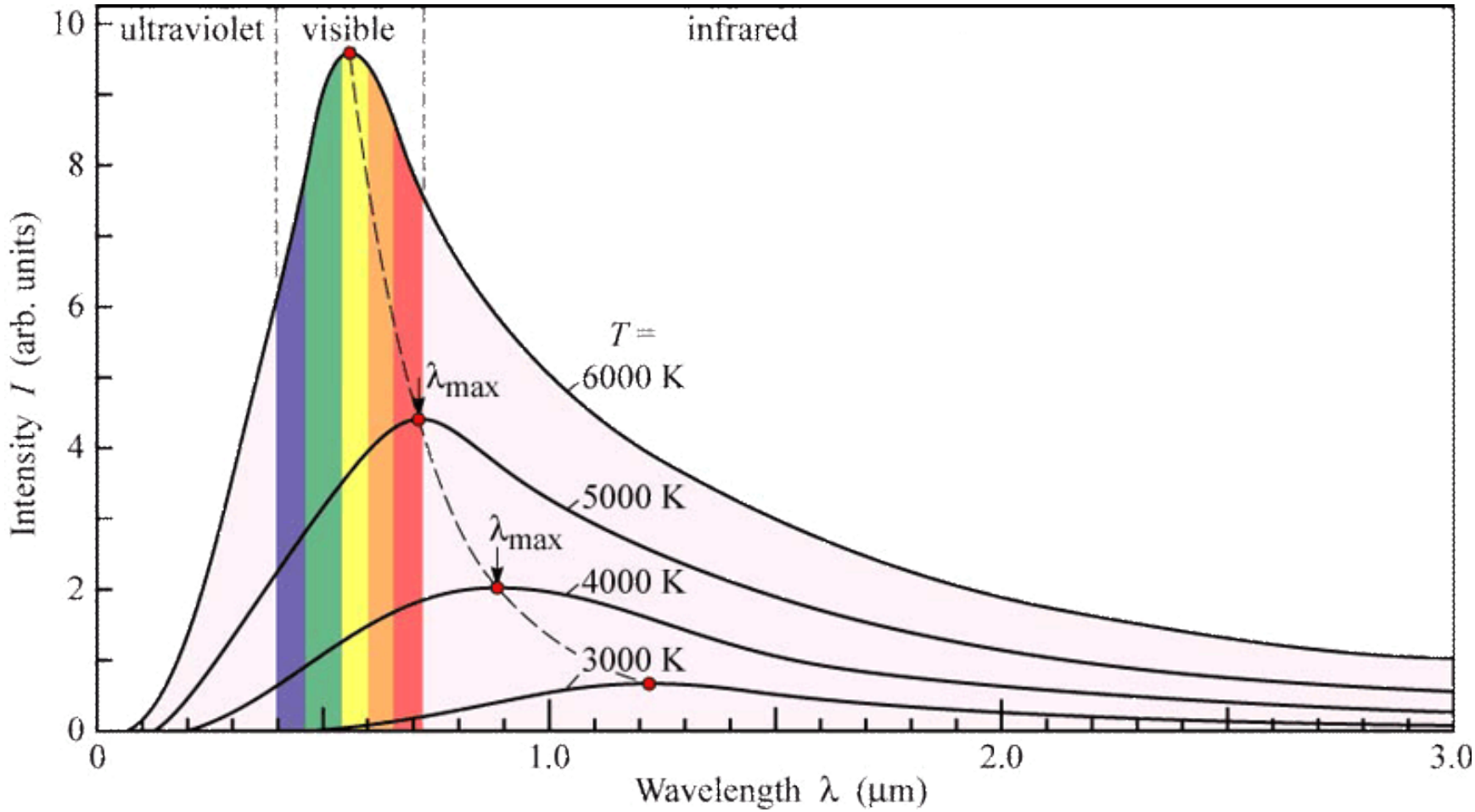

Figure 2.1: Spectra of black-body radiation at various temperatures, according to Wien's displacement law [3].

CHAPTER 3

RESULTS

CHAPTER 4

DISCUSSION

CHAPTER 5

CONCLUSION

Appendices

APPENDIX A

EXPERIMENTAL EQUIPMENT

A telescope and a spectrometer were used to analyze the sun. Many other instruments were used.

APPENDIX B

DATA PROCESSING

Data was processed before being added to this document.

REFERENCES

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