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In Collaboration with

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**Detecting Urgency Status of Social Media Based Customer Support  
Requests**

A Dissertation by

Mr. Amila Fernando

Supervised by

Ms. Sulari Fernando

Submitted in partial fulfilment of the requirements for the BEng. in Software Engineering  
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## **ABSTRACT**

Customer support platforms of the digital product-based companies are frequently handling with a high number of service requests (support tickets) from their product consumers on a daily basis. Sometimes it is practically impossible to identify the support requests that needs to be attended on a high priority without properly inspecting the details received support ticket. As of today, most of the companies in the customer service domain follows a more manual approach to evaluate and categorize the customer support tickets at the initial steps of the support process and dispatch it into the responsible parties for further examination and then attend to the reported customer. This is a very time-consuming process, and it is identified to be one of the major reasons for customer support agents taking longer period of time to reach to customers.

The author of this research presents a solution to overcome this problem by utilizing the urgency detection research area in NLP domain. Author introduces a novel, minimally supervised learning technique which will only require a very limited number of properly labelled data to train a high performing deep learning classifier which will have the capability of identifying the messages in different levels of urgency. Furthermore, author wishes to enhance the performance of this classification model by extending its architecture to allow accepting a higher volumes of data input and generate the classification results in a smaller amount of time.

### **Keywords:**

Urgency Detection,

Deep Learning

Minimal Supervision

Customer Support Requests

Digital Products

Social Media