Smart Vending Machine Software For Specially Abled

Summer Training Report submitted in partial fulfilment of the requirement for the degree of

B.Tech

In

Computer Science & Engineering

Training Coordinator

Ms. Tanu Sharma

Assistant Prof.

By

Geetansh Chawla

Karan Rawlley

Mayank Jha

Bhagwan Parshuram Institute of Technology

PSP-4, Sector-17, Rohini, Delhi - 89

October 2018

DECLARATION

This is to certify that Report entitled “Smart Vending Machine Software For Specially Abled” which is submitted by us in partial fulfilment of the requirement for the award of degree B.Tech in Computer Engineering to BPIT, GGSIP University, Dwarka, Delhi comprises only my original work and due acknowledgement has been made in the text to all other material used.

Date:

Name of Students:

Geetansh Chawla

Karan Rawlley

Mayank Jha

ACKNOWLEDGEMENT

No project is ever complete without the guidance of those experts who have already traded this past before and hence become master of it and as a result, our leader. So we would like to take this opportunity to take all those individuals who have helped us in visualizing this project.

We express our deep gratitude to our project guide and mentor **Ms. Tanu Sharma** for providing timely assistance to our query and guidance that she gave owing to her experience in this field for past many years. She had indeed been a lighthouse for us in this journey.

We extend our sincere appreciation to all our Professors from BPIT for their valuable inside and tip during the designing of the project. Their contributions have been valuable in so many ways that we find it difficult to acknowledge of them individually.

We are also grateful to our HOD **Dr. Deepali Virmani** and our Principal **Prof. Payal Pahwa** for extending their help directly and indirectly through various channel in our project work.

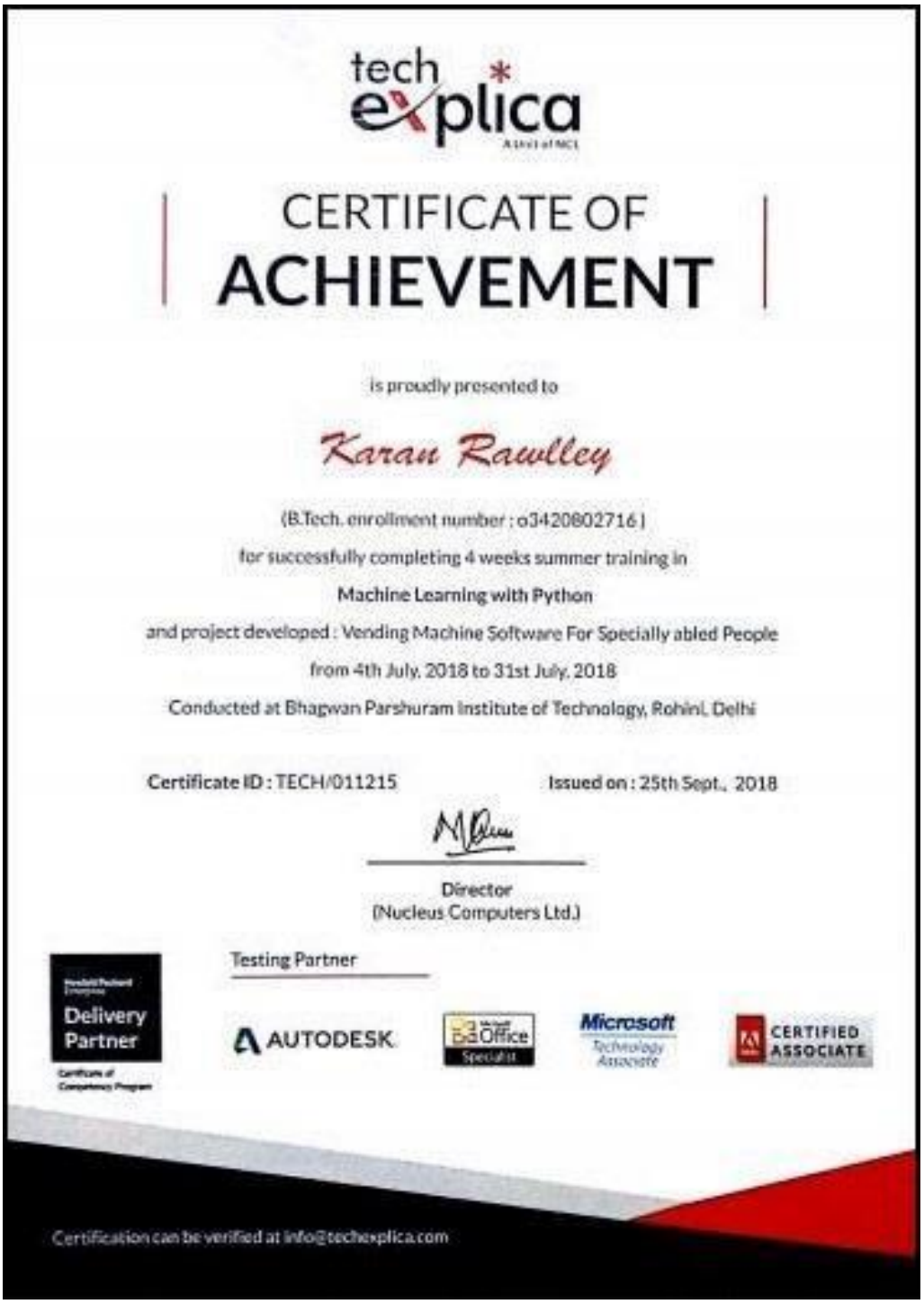
Last but not the least we thank our parents too without whose incessant support, encouragement and love work would have not been possible.

Geetansh Chawla

Karan Rawlley

Mayank Jha

COMPANY CERTIFICATE

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CERTIFICATE OF
ACHIEVEMENT
is proudly presented to
Mayank Jha
(B.Tech. enrollment number : o4220802716)
for successfully completing 4 weeks summer training in
Machine Learning with Python
and project developed : Vending Machine Software For Specially abled People
from 4th July, 2018 to 31st July, 2018
Conducted at Bhagwan Parshuram Institute of Technology, Rohini, Delhi
Certificate ID : TECH/011216
Issued on : 25th Sept., 2018
Director
(Nucleus Computers Ltd.)
Testing Partner
Delivery Partner
Certificate of Competency Program
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Microsoft Technology Associate
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CERTIFICATE OF ACHIEVEMENT

is proudly presented to

Geetansh Chawla

(B.Tech. enrollment number : o2220802716)

for successfully completing 4 weeks summer training in

Machine Learning with Python

and project developed : Vending Machine Software For Specially abled People

from 4th July, 2018 to 31st July, 2018

Conducted at Bhagwan Parshuram Institute of Technology, Rohini, Delhi

Certificate ID : TECH/011214 **Issued on :** 25th Sept., 2018

Director
(Nucleus Computers Ltd.)

Testing Partner

Hewlett Packard Enterprise Delivery Partner
Certificate of Competency Program

AUTODESK.

Office Specialist

Microsoft Technology Associate

CERTIFIED ASSOCIATE

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TRAINING COORDINATOR CERTIFICATE

This is to certify that Report entitled "**Smart Vending Machine Software For Specially Abled**" which is submitted by **Geetansh Chawla, Karan Rawlley and Mayank Jha** in partial fulfilment of the requirement for the award of degree B.Tech in Computer Engineering to BPIT, GGSIP University, Dwarka, Delhi is a record of the candidate own work and the matter embodied in this report is adhered to the given format.

Date: **Coordinator**

ABSTRACT

Our project, Smart Vending Machine Software For Specially Abled, analyzes the biometric identification and tracking related technologies of human-computer interaction. Based on face detection algorithm, we propose a position-based head motion detection algorithm, which does not depend on the specific biometric identification and tracking. It uses feature classification method to detect eye opening and closing actions. We also designed a software system to operate computer by image detection of head and eye movements. The combinations of head and eye movements, are mapped to various mouse events, including move, click, and so on. This system can be used for the upper limb disabled who fail to use the traditional mouse and keyboard. Furthermore, it can also be used for general computer users to do neck rehabilitation training, computer somatic games, etc.