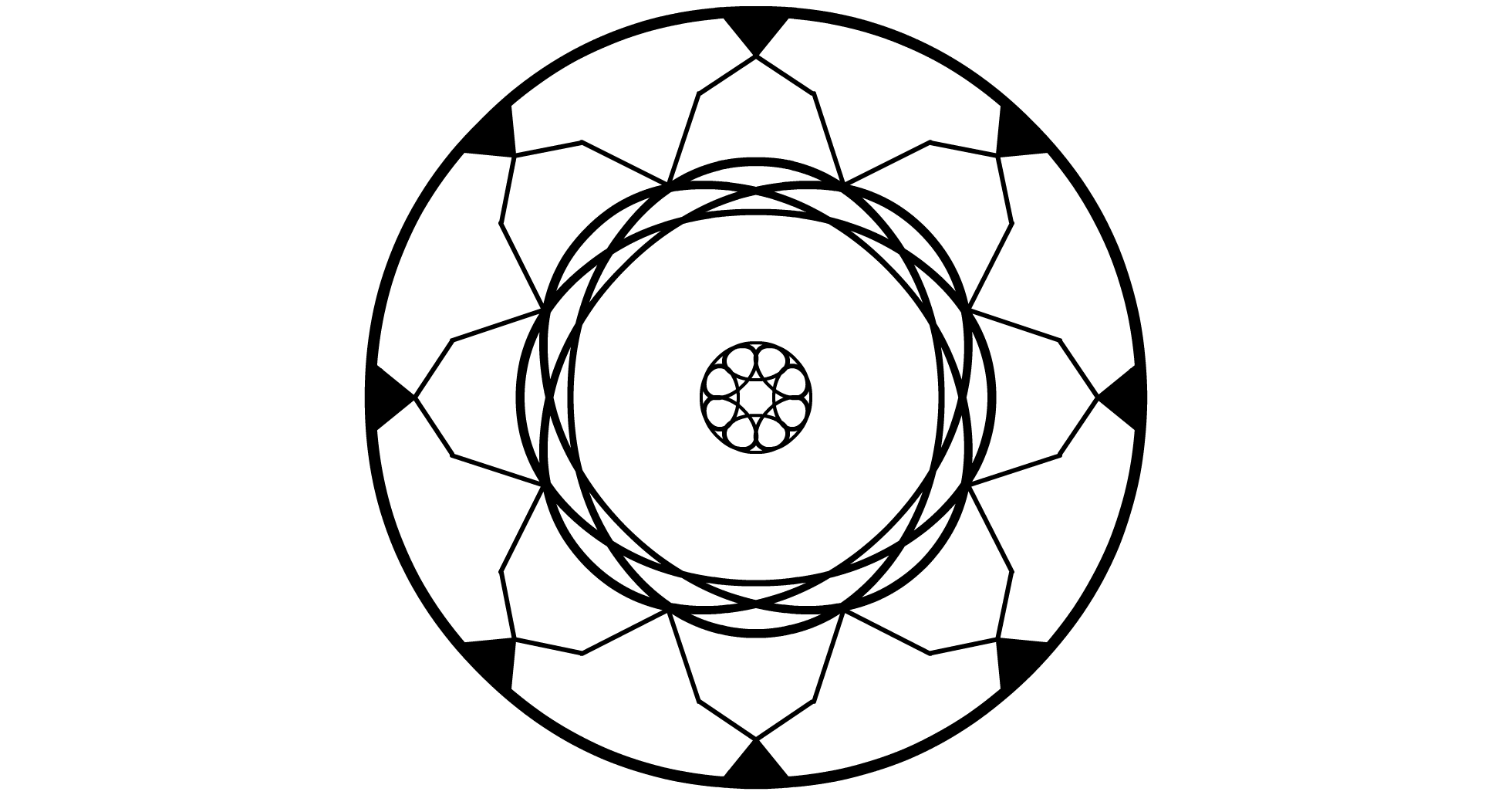
**TechOps**



**Team Members**

Jeswin Abraham, Alex Bates, Philip Bouie Naga Gattupalli

Date: 12/6/2016

**Abstract**

Parking Monitoring system is a system which is used to monitor parking lot

spaces from a high elevated camera. It means that the system will take a few of

images and compare them to see if there is any parking slot occupied or not. The

system makes use of the images to keep track of the available spaces and display the

output of the parking space availability for the potential drivers who intend to park

in a selected parking lot. When a parking space is occupied, the system updates the

parking lot by removing the occupied space. This helps users in reducing their time

to search for an available parking space.

**Table of Contents**

* Introduction
  + Motivation/Background
    - parking lots suck
    - hard to find spaces (kennesaw is crowded)
  + Planned end product
    - thing
  + Current end product
    - thing
  + Explanation of differences (here you can explain issues with technologies along the way (i.e., lessons learned) or, perhaps, strategies that would better serve someone working on this project in the future
    - technical challenges
    - time limits

Technical Documentation

* + Software Design
    - ui layout
    - uml
    - class diagram
    - past dev experience
  + Tools used
    - pycharm
    - caffe
    - cuda
    - open cv
    - python
    - ubuntu
    - PIL
    - DIGITS
  + Dependencies/Assumptions
    - Ubuntu
    - preinstalled software
    - graphics card needed
    - proper specs on computer (fairly modern)
* Evaluation
  + Test Plan
    - usability
    - accuracy
  + Testing conducted
    - team members tried program
    - accuracy of stats
  + Results of testing
    - needs improvement (shadows)
    - moderate results
* Future work
  + Where can this project go in the future?
    - Better stuff with statistics tracking
    - increased accuracy/counting cars instead of laying out parking lot
    - external monitoring for vehicle operators
    - mobile application
    - improved UI/UX
  + What are the next steps for your project if you were to continue working on it?
    - Statistical analysis
    - increase accuracy of network model
    - speed improvements (multi threading)