As a World Leader in Data Analytics products, we develop software that enables our customers to do amazing things with the fast and vast amount of **Data** that's all around us.

SAS is proud to be part of the **Data for Good** movement. Applying data for social good has led to new and creative ways to address global issues. https://www.sas.com/en_gb/data-for-good.html

GU Tech Society Hackathon 2019

SAS Challenge

Your Recycling Solution: Make a Difference

A solution that can help the producers, the consumers, the recycling collectors, the recyclers or all of them!

For our GUTS challenge, we'd also like you to do great things … with potential to do good – by coming up with an innovative bit of software that could help us tackle a problem that's impacting our planet.

GU Tech Society Hackathon 2019

SAS Challenge

Here in the UK, every Adult throws out over **400kg** of Household waste per year. The weight of four adult giant Pandas. Most of this can be avoided. A lot of food bought is wasted; most of the stuff we chuck out goes to landfill: currently we only recycle around **44%** of this – a lot, lot less than many other countries.

With ever growing cities, waste removal and recycling can be a real challenge. From coming up with routes for the trucks to collect it, to sorting it better into the right categories.

Even knowing if and what colour of bin it should go in can be a challenge at times!

Indeed, encouraging reduced waste disposal through reuse and reduced packaging can also be a big problem.

- **Image Classification**: How can we **classify** Recyclable materials from Images?
  - What recycling goes into what coloured bin?
  - What about people with visual impairment? Use audio?
  - Open Data Sets/ Tagged image sets are available
  - Come talk to us for more information.

- **Travelling Salesman Problem**: How can we improve the collection of recycling from (say) all the schools in Scotland?
  - Can we schedule and route collections better?
  - Can we make it more cost effective – and allow more things to be recycled?
  - Application? Web-App? Mobile App?

- **Gamify Recycling:** How can we help consumers / public recycle more?
  - Can we improve awareness?
  - Reward - How much have I recycled?
  - Can this material be recycled in my area?

- **Food Management:** App to help reduce the 7.1 Million Tonnes of household **food waste**. (more at wrap.org.uk)
  - How can we stop buying food we usually throw out?
  - How can we use leftover food better – prevent waste?
  - Track food expiration date. When and how to re-stock?
  - What's going out of date in your Fridge? What about visually impaired users?

Come talk to our team on our stand, or chat via the Discord channel.
Best of Luck!

Improve how we reduce waste, recycle and reuse.