

PolyChord

A CUTTING-EDGE TOOL FOR SOLVING COMPLEX BIG DATA PROBLEMS

WHO WE ARE

PolyChord Ltd is a **Data Science Company**, a spin-out from Cambridge University with unique cutting edge Data Tools invented by 2 Cambridge Professors of Astrophysics.

We are an SME, with strong connections with research organisation **Cambridge University**, we can solve a lot of problems but we only want to solve valuable ones.

WHAT WE DO

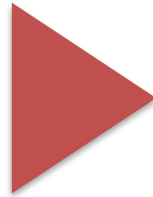
We collaborate with technology-focused companies to help solve **Big Data problems** where there are high dimensions, many complex variables and the need to optimise parameters; where results are of high value to the business.



How is it relevant to Urban mobility?

What mode of transport
am I likely to choose
through the TfL system?

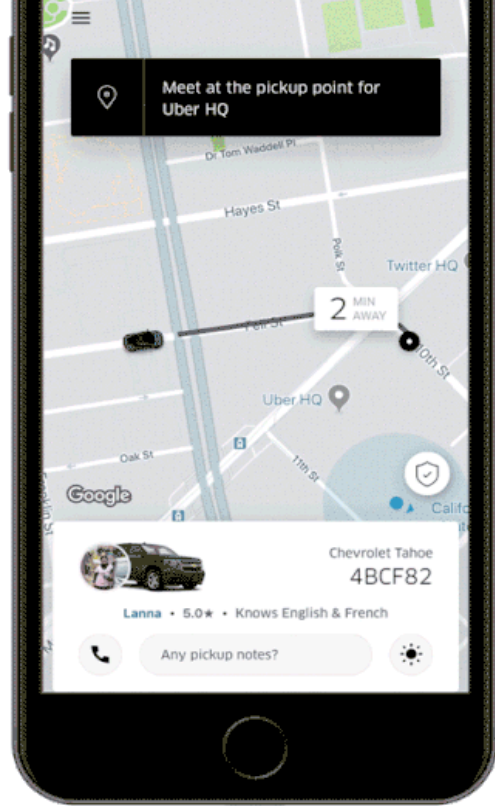
Where is one connected
vehicle in relation to
another?



These are complex,
high dimensional data
challenges that other tools
can't handle.

Polychord was designed
with complexity in mind.

Let's discuss Bayesian
optimisation.



Uber uses Bayesian Optimisation to select your nearest vehicle

Uber Data Head Zoubhin Ghahramani is a Bayesian Optimisation expert who studied with my fellow directors Professor Mike Hobson and Professor Anthony Lasenby

PolyChord & its team delivers state of the art Bayesian optimisation



Developed to analyse 10 billion years of data from the Planck satellite.

Big Data requires new cutting-edge solutions.



Urban Mobility is generating Bigger Data problems than ever before.

Other tools cannot handle the size or complexity.



Deployment of PolyChord is a big task.

We need funding from collaborating organisations or from third parties.

It would pay to apply the principle to...



What will be my best route through a system when my choices are driven by cost, or green-ness or rapidity?



Now that I have more data through traffic sensors how can I use it to make decisions and predictions?



How can I cross-refer all my data sets to guide passengers towards more effective choices?

How practically we apply PolyChord to a complex optimisation problem in Mobility.



IDENTIFY THE PROBLEM AND
PLAN A COMPREHENSIVE,
INNOVATIVE APPROACH



CREATE A COLLABORATION
AGREEMENT WHICH INCLUDES
CONFIDENTIALITY



FORMULATE A CLEAR STRATEGY
AND AGREE ON TIMELINES,
COSTS AND OUTCOMES

**We have three
major projects
on the go.**

We want one or two more.
CONTACT US.

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