Company Name:	BT PLC
Team / Department:	Diagnostic Technology, Service Technology & Analytics
Address:	Capricorn Building 2620 The Quadrant Aztec West Bristol BS32 4AQ

Provisional title for project:

Identification, prediction and potential resolution of fault location/type, impacting the delivery of Internet connectivity to domestic users at home.

Short description of the problem that would be addressed by the project:

Can we identify or predict which component(s) of the end-to-end Internet connection are under performing, unstable, suffering interference or faulty using the diagnostic data collected from the broadband network and customer premise equipment (CPE)? Once the suspect component(s) has been identified or predicted to become a problem, can a remedial action or action(s) be recommended?

Short description of the data sources that would be used in the project, and how they would be used.

We will provide Broadband speed and stability metrics over a 4-8 week period; and in home / customer premise equipment metrics on how each device its connected to the home hub/router, including Wi-Fi specification, speed, signal strength and potential interference. These data could be in two hourly or daily time intervals as absolute measurements, aggregated or normalised KPIs

Would any work by the student need to be carried out on site at the Company with the exception of supervisory meetings?

No

Any issues of data confidentiality and IPR that would need to be resolved

Yes

Essential skills

Big Data analytics including machine learning,

Desirable skills

Some knowledge of telecommunications would be an advantage, but not essential

Preferred degree programmes (if any)

Mathematics, Data science, possibly Computer science

Preferred selection method

Telephone interview. Skype is also an option

Support and training offered by the company

Full subject matter expertise support, via email, phone, Skype etc. Regular / monthly face to face meetings with business expert or subject matter experts, available at a selection of locations around the UK,

Financial assistance offered by the company

The organisation will pay the honorarium (£500) Travel or other expenses will be incurred and will be reimbursed as appropriate

Any other comments

Successful identification, prediction and potential resolution of fault location/type can potentially lead to improved customer experience, reduced call handling time, and increased NPS

For details on how to apply, please visit: **https://www.cdrc.ac.uk/mds/details-for-students/**