Master Thesis – Unique Fingerprinting of Crashes in Live Networks

Background
Mobile networks are used all over the world and are the corner stone for the networked society, where everything will be connected. To support the vast amount and diversity of data expected in future networks, Ericsson develops products to drive and support the networked society. The subject for this Master Thesis is defined to investigate and develop algorithms, architecture, tools etc. to support huge increase of speech, data, and massive IoT for Radio Access Networks.

Thesis Description
Crashes often occur in large systems and due to security reasons, all applications are stripped from symbol information meaning that any back trace will be address based and must be resolved later. This makes grouping of large volumes of crashes hard since you need to do in depth analysis of each crash. But is it possible, to purely based on relative addresses (which can move between builds), create a unique fingerprint, unique id that can be used to identify identical or similar crashes?

The thesis will be concluded with a result presentation for the Ericsson team.

Qualifications
This project aims at students in electrical engineering, computer science, computer engineering or similar.

Extent
1-2 students, 30hp each

Location
Ericsson AB Mjärdevi, Linköping

Preferred Starting Date
Spring 2023

Keywords
SW development, Mobile Telecommunication, Optimization.