Bachelor's / Master's / Semester Project

Evaluating and Enabling Processing inside Memory

Almost all data intensive workloads are bottlenecked in terms of performance and energy by the extensive data movement between processor and memory. We are looking for an enthusiastic student who is hungry for learning and enabling a paradigm shift that can eliminate this data movement bottleneck: computation inside memory (i.e., inside where the data resides).

You will be involved in a project that aims to evaluate the benefits of executing data-intensive applications inside specialized logic in memory and developing both mechanisms and simulators for this purpose.

Requirements

- Outstanding programming skills (C/C++)
- Computer architecture background
- An interest in developing and evaluating new ideas
- Strong work ethic

For example studies you may perform please see:

- "A Scalable Processing-in-Memory Accelerator for Parallel Graph Processing", ISCA 2015.

If you are interested, please email:
Professor Onur Mutlu, omutlu@gmail.com and Dr. Mohammad Sadrosadati, m.sadr89@gmail.com

https://people.inf.ethz.ch/omutlu/
https://safari.ethz.ch/work-with-us/projects/