

# We are looking for brains

*Hyperstone develops NAND flash memory controllers for demanding industrial applications. As memory capacities continue to increase and the structural widths of flash memory are decreasing and 3D NAND technology is coming to mass production, the need for powerful error correction in the memory controller is rising. Therefore we are looking for dedicated and motivated students to support our team in Konstanz for the following tasks:*

## Master Thesis

*in the field of error correction methods in flash memory systems*

### Task Description

- Literature research on Low-Density Parity-Check codes (LDPC) and Generalized Concatenated codes (GC)
- Implementation or evaluation of an LDPC code and comparison with an existing implementation of a GC code
- Analysis and create an error model of the flash memory

### Requirements

- Master's program in electrical engineering, telecommunication engineering, computer science or comparable course of studies
- Good knowledge of error correction codes
- Good programming skills (knowledge of Julia advantageous)
- Knowledge of signal processing
- Ability to work independently

*The thesis can be written in either german or english over the course of 6 months.  
An immediate start is wished.*

**For further information or for your application please contact:  
Sandro-Diego Wölfle ([swoelfle@hyperstone.com](mailto:swoelfle@hyperstone.com))**

**[www.hyperstone.com](http://www.hyperstone.com)**

**Hyperstone GmbH | Line Eid Str. 3 | 78467 Konstanz**