



BA / Group / MA / Lab:

## Android Assisted Smart Shopping

Even as smart phone market penetration surpasses 40%, everyday shopping continues to be mostly paper-driven. Not only will your receipts be printed on paper, but the easiest way to compile a shopping list is still with a pen. We can certainly improve shopping experience with the use of smart phones.

The goal is to develop a user-friendly application that helps to keep track of bought items and prices, and aids the user in compiling her shopping list. To that end, we wish to use an existing OCR library to scan paper receipts and analyze purchased items and prices. Together with previous purchasing behavior, this can be used to predict what items will be required in the future. If for example the user buys milk every week and hasn't done so for six days, it is likely to be included in the next shopping list.



Depending on the kind of thesis you are writing, the application could further be enriched. We already thought of geo-location information, price comparison, shared shopping lists and bill-splitting among your cooking group, flatmates and partner. But of course, there is also enough room for your great ideas we haven't thought of!

### Goals

- Develop a shopping list application that can extract purchase information from receipts.
- Write a small web service that collects and stores the collected data.

### Requirements

- Good Java Programming skills. Knowledge in software architecture is desirable for future extensions.
- Enough C/C++ knowledge to use an OCR library via JNI are helpful, but might be acquired "on the way".

### Interested? For more details please contact

- Jochen Seidel: [jochen.seidel@tik.ee.ethz.ch](mailto:jochen.seidel@tik.ee.ethz.ch), ETZ G61.1