

inf.unibe: GH ↨ SOL

Manuel Leuenberger

Doktorand

Software Composition Group
Universität Bern

The background of the image is a light-colored aerial photograph of a rural area. It shows a network of white lines representing roads and field boundaries on a textured, yellowish-brown terrain. A small, dark green cluster of buildings is visible in the upper left corner.

1988-2004

Auswachsen











Windows

An error has occurred. To continue:

Press Enter to return to Windows, or

Press CTRL+ALT+DEL to restart your computer. If you do this,
you will lose any unsaved information in all open applications.

Error: 0E : 016F : BFF9B3D4

Press any key to continue _



[Exploring
Mars](#)

The New York Times
Win a \$20,000 Trip!  CLICK HERE!

Looking for a
Car? Job? Date?

[Yellow Pages](#) - [People Search](#) - [Maps](#) - [Classifieds](#) - [News](#) - [Stock Quotes](#) - [Sports Scores](#)

- **[Arts and Humanities](#)** [Xtra!]
[Architecture](#), [Photography](#), [Literature](#)...
- **[Business and Economy](#)** [Xtra!]
[Companies](#), [Investing](#), [Employment](#)...
- **[Computers and Internet](#)** [Xtra!]
[Internet](#), [WWW](#), [Software](#), [Multimedia](#)...
- **[Education](#)**
[Universities](#), [K-12](#), [College Entrance](#)...
- **[Entertainment](#)** [Xtra!]
[Cool Links](#), [Movies](#), [Music](#), [Humor](#)...
- **[Government](#)**
[Military](#), [Politics](#) [Xtra!], [Law](#), [Taxes](#)...
- **[Health](#)** [Xtra!]
[Medicine](#), [Drugs](#), [Diseases](#), [Fitness](#)...
- **[News and Media](#)** [Xtra!]
[Current Events](#), [Magazines](#), [TV](#), [Newspapers](#)...
- **[Recreation and Sports](#)** [Xtra!]
[Sports](#), [Games](#), [Travel](#), [Autos](#), [Outdoors](#)...
- **[Reference](#)**
[Libraries](#), [Dictionaries](#), [Phone Numbers](#)...
- **[Regional](#)**
[Countries](#), [Regions](#), [U.S. States](#)...
- **[Science](#)**
[CS](#), [Biology](#), [Astronomy](#), [Engineering](#)...
- **[Social Science](#)**
[Anthropology](#), [Sociology](#), [Economics](#)...
- **[Society and Culture](#)**
[People](#), [Environment](#), [Religion](#)...

[My Yahoo!](#) - [Yahooligans!](#) for Kids - [Beatrice's Web Guide](#) - [Yahoo! Internet Life](#)

[Weekly Picks](#) - [Today's Web Events](#) - [Chat](#) - [Weather Forecasts](#)
[Random Yahoo! Link](#) - [Yahoo! Shop](#)

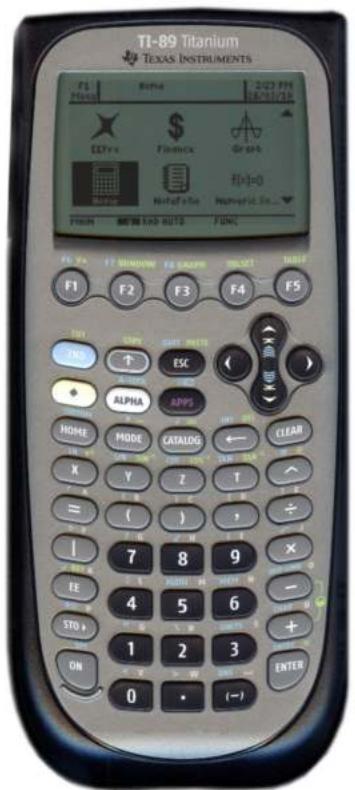
National Yahoos [Canada](#) - [France](#) - [Germany](#) - [Japan](#) - [U.K. & Ireland](#)
Yahoo! Metros [Atlanta](#) - [Austin](#) - [Boston](#) - [Chicago](#) - [Dallas / Fort Worth](#) - [Los Angeles](#)
[Get Local](#) [Minneapolis / St. Paul](#) - [New York](#) - [S.F. Bay](#) - [Seattle](#) - [Washington D.C.](#)

[How to Include Your Site](#) - [Company Information](#) - [Contributors](#) - [Yahoo! to Go](#)

A detailed map of a residential area, likely a suburb or town, showing a dense network of streets. The map includes several roads with yellow center lines and green shoulders. There are also several green spaces, including parks and agricultural fields. The map is color-coded with various shades of brown, tan, and green to represent different land uses.

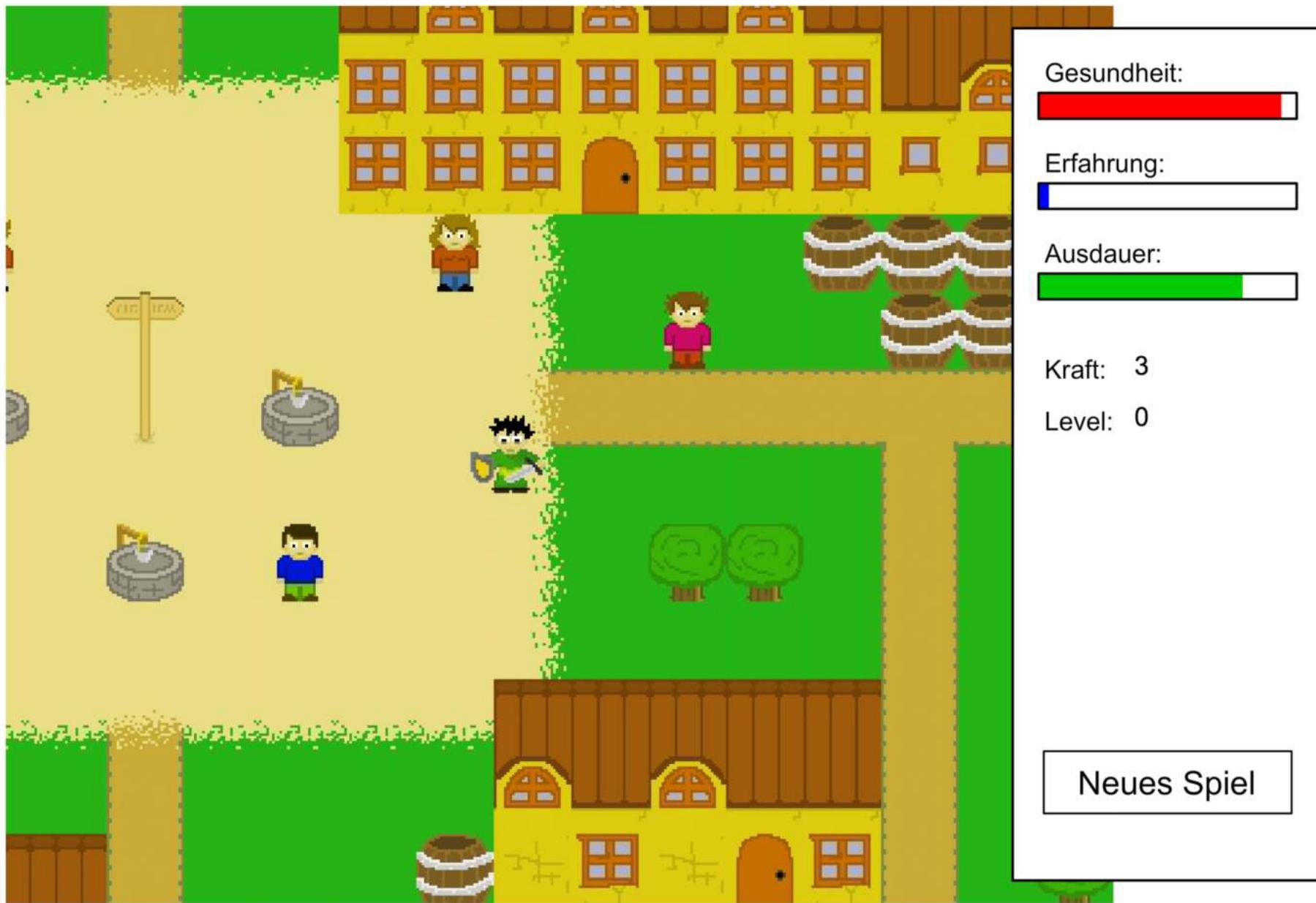
2004-2007

Matura









An aerial photograph of a residential area, likely a suburb or town. The foreground shows a dense grid of streets and houses, while the background features larger fields and green spaces.

2007-2008

Und nun?

Informatikstudium

Way-up Informatiklehre

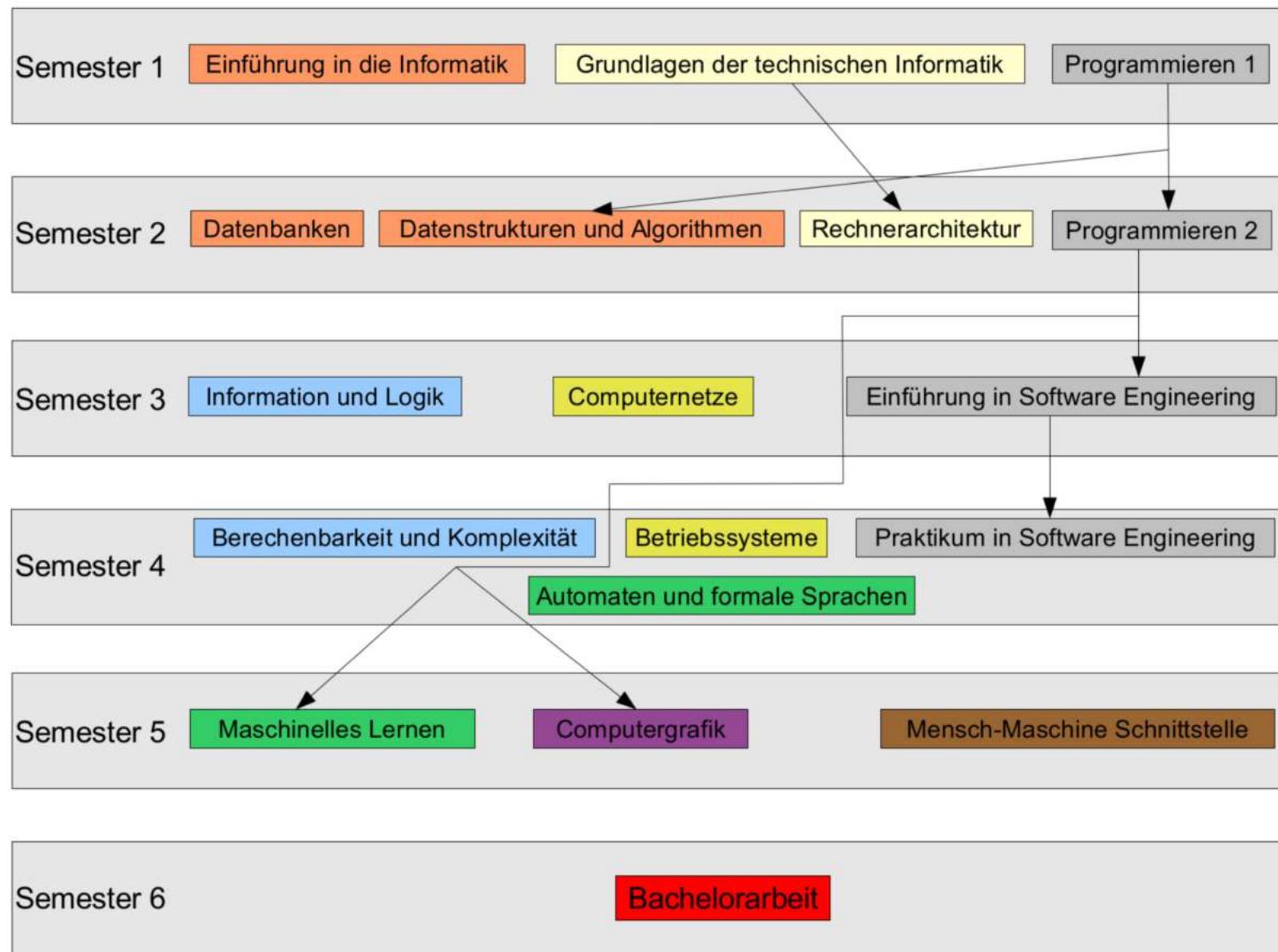
Gestalterischer Vorkurs

Zivi

Temporär Arbeiten



2008-2013
Bachelor



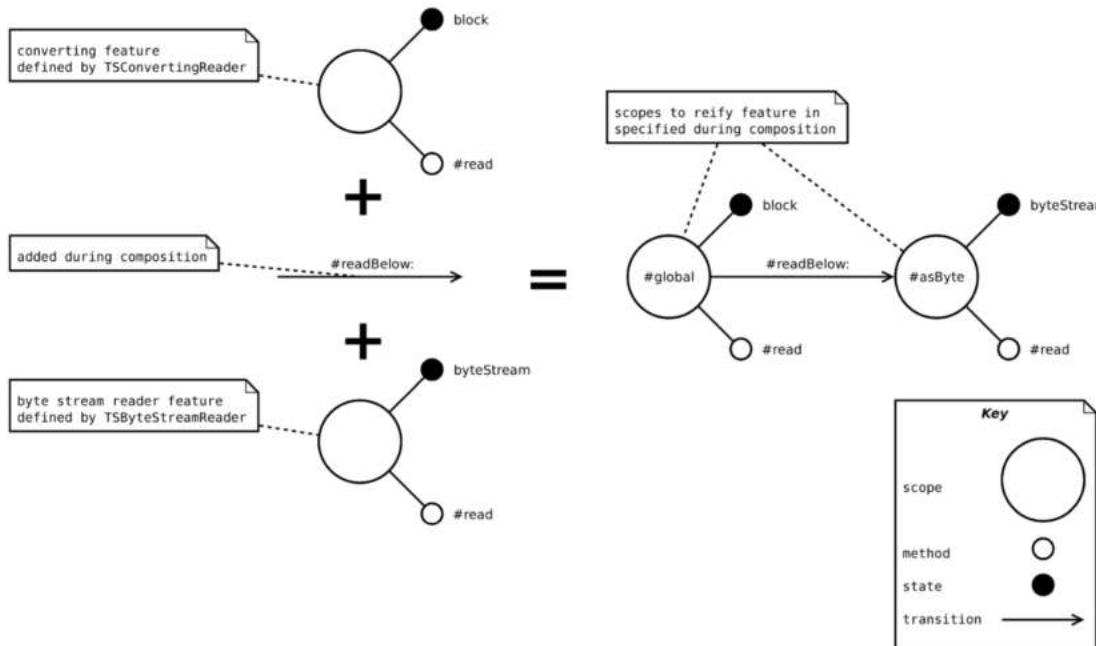


Figure 7: Composition of features by adapting a scoped talent as in Listing 6.



2013-2014

Und nun?



ZIVILDIENST
SERVICE CIVIL
SERVIZIO CIVILE
SERVETSCH CIVIL



A topographic map of the Swiss Jura region, showing green hills, blue lakes, and orange roads. Three cities are highlighted with red circles: Neuchâtel in the north, Fribourg in the west, and Bern in the east.

2014-2017

Master

Tracks

The Swiss Joint Master in Computer Science offers a choice of over 60 teaching units in 7 different tracks.

T0

General

A variety of subject areas which supplement the other 6 tracks.

T1

Distributed Systems

Distributed systems, peer-to-peer networks, grid and cloud computing, mobile communications, concurrency, foundations and algorithms, verification and model checking, bio-inspired and parallel architectures, network security, pervasive and context-aware computing.

T2

Advanced Software Engineering

Advanced methods for the analysis, development and testing of modern and reliable software systems in heterogeneous, service-oriented and closely connected system topologies.

T3

Advanced Information Processing

Signal processing for pattern recognition, document analysis, computational linguistics, multimodal interfaces, (re)acquisition of information and computer graphics, as well as exposure to artificial intelligence.

T4

Logic

Computability and complexity, proof theory, lambda calculus, logic programming and proof search, classical and non-classical logics, universal algebra, automata, verification, knowledge representation, data privacy, data mining, ontologies, formal methods.

T5

Information Systems and Decision Support

eBusiness, eGovernment, information management, database management systems and data warehousing, fuzzy classification, decision support, quantitative models and methods of Operations Research, applied to logistics, supply chain management, and decision support for difficult managerial decisions.

T6

Data Science

Big data, data analysis, cloud computing, large-scale distributed systems, machine learning, pattern recognition, social media analytics

```
// write terms
BytesRef term;
while ((term = termsEnum.next()) != null) {
    termWriter.write(term, 84% check the returned value (1715 out of 2033 invocations)
}
// store lookup, if needed
```

Press 'F2' for focus

Figure 4.12: Tooltip showing that `termsEnum.next()` is checked for null in 84% of the dereferenced cases.

```
Terms terms = fields.terms(field);
TermsEnum termsEnum = terms.iterator();

// write terms
BytesRef term;
6% check the returned value (68 out of 1107 invocations)
while ((term = termsEnum.next()) != null) {
```

Press 'F2' for focus

Figure 4.13: Tooltip showing that `terms.iterator()` is checked for null in 6% of the dereferenced cases.

```
@Override
public void write(Fields fields) throws IOException {
    delegateFieldsConsumer.write(fields);

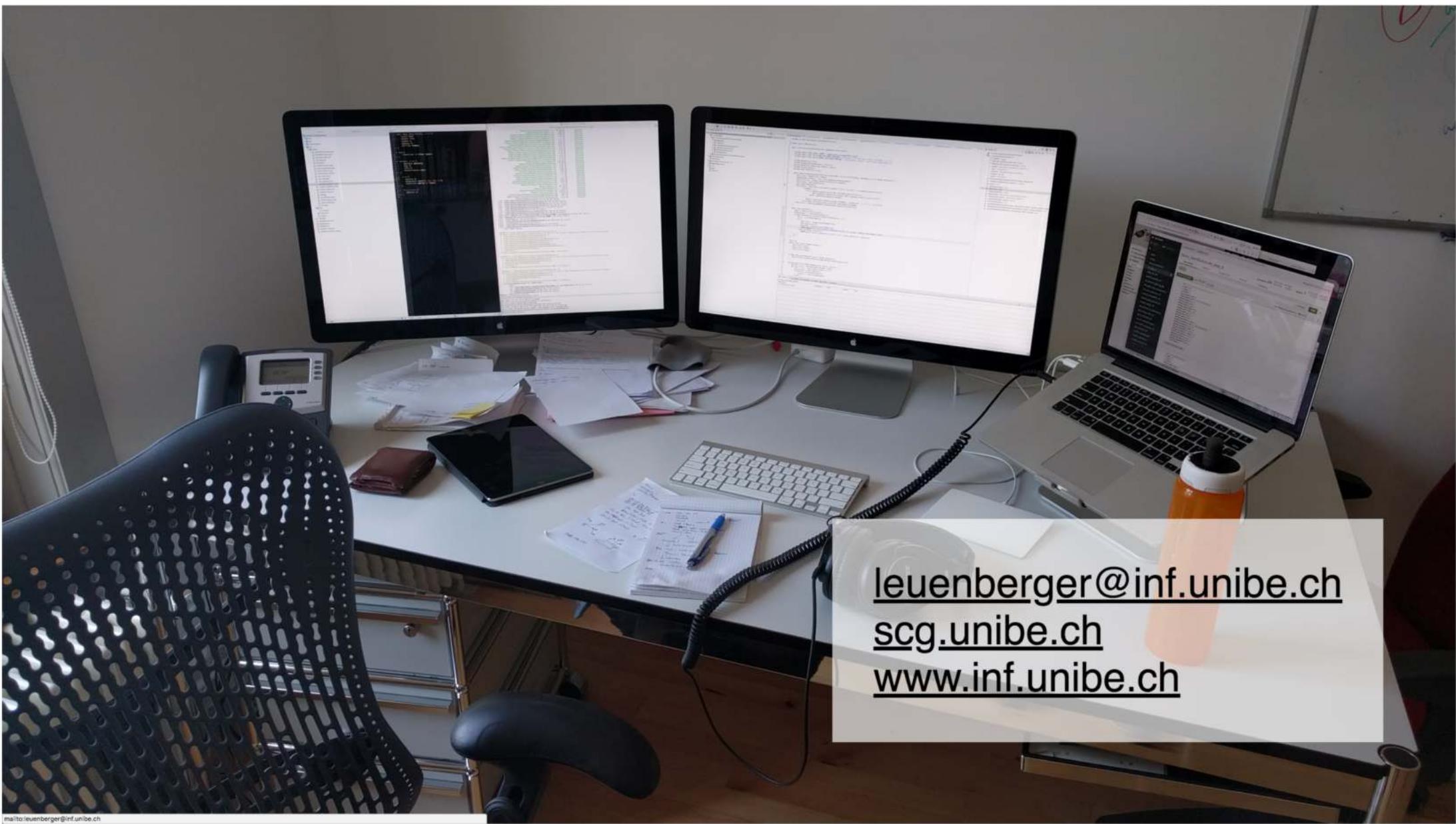
    for (String field : fie no data
        CompletionTermWriter Press 'F2' for focus CompletionTermWriter();
    Terms terms = fields.terms(field);
```

Press 'F2' for focus

Figure 4.14: Tooltip showing that there is no data for `delegateFieldsConsumer.write(fields)`.

4.3 Summary





leuenberger@inf.unibe.ch
scg.unibe.ch
www.inf.unibe.ch