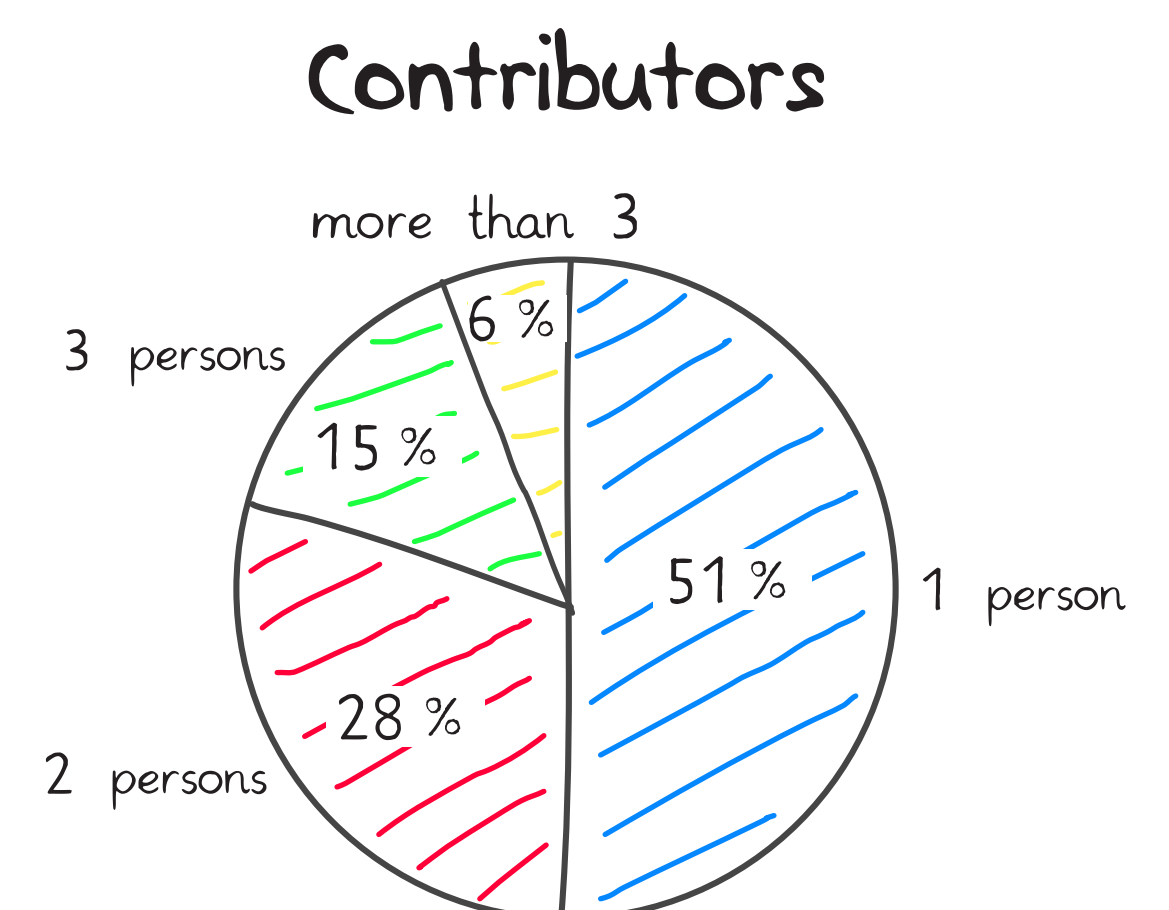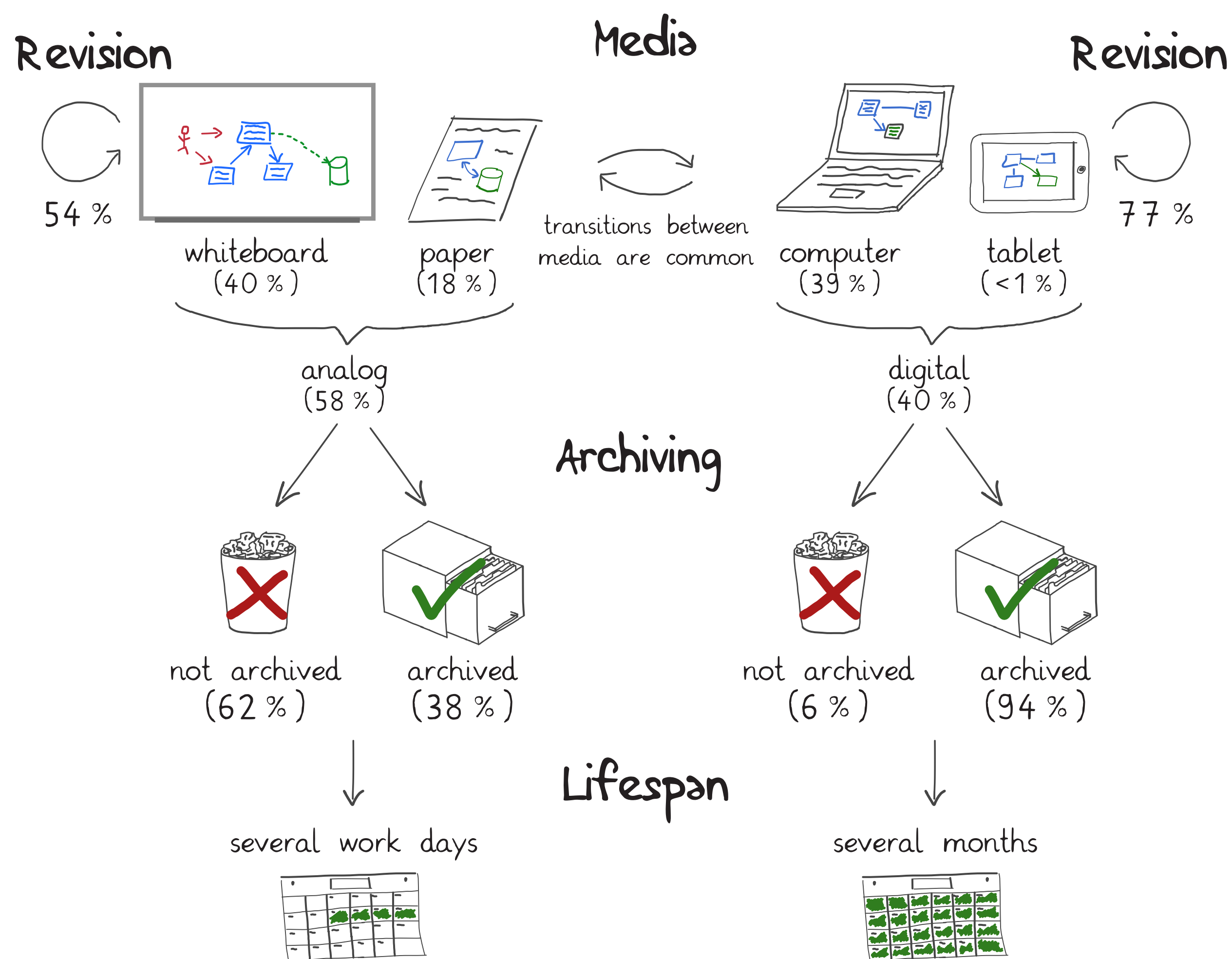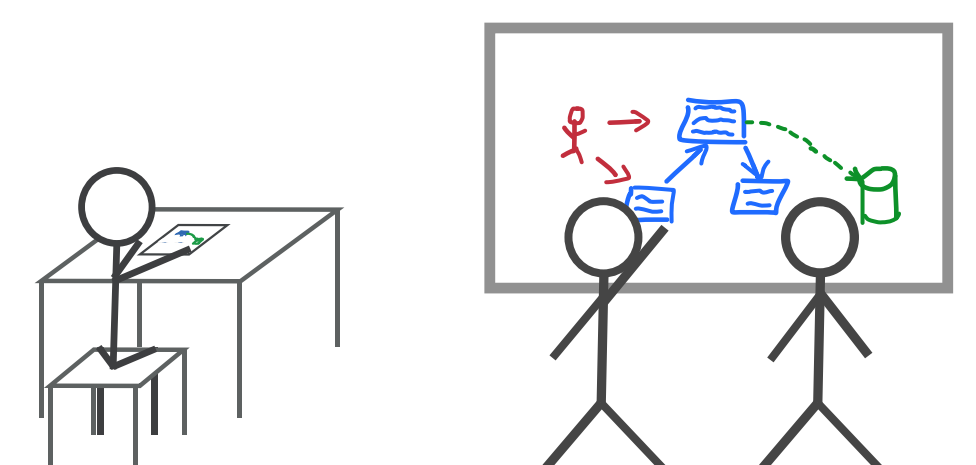# Sketches and Diagrams in Practice

How and why do software practitioners use sketches and diagrams in their daily work?

Revision

whiteboard (40 %)
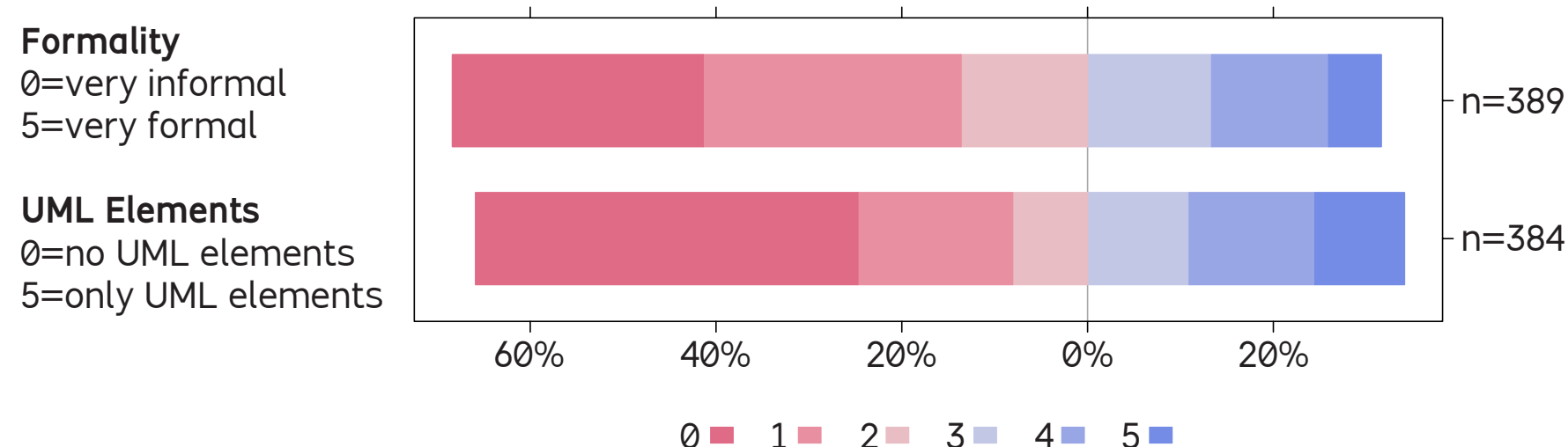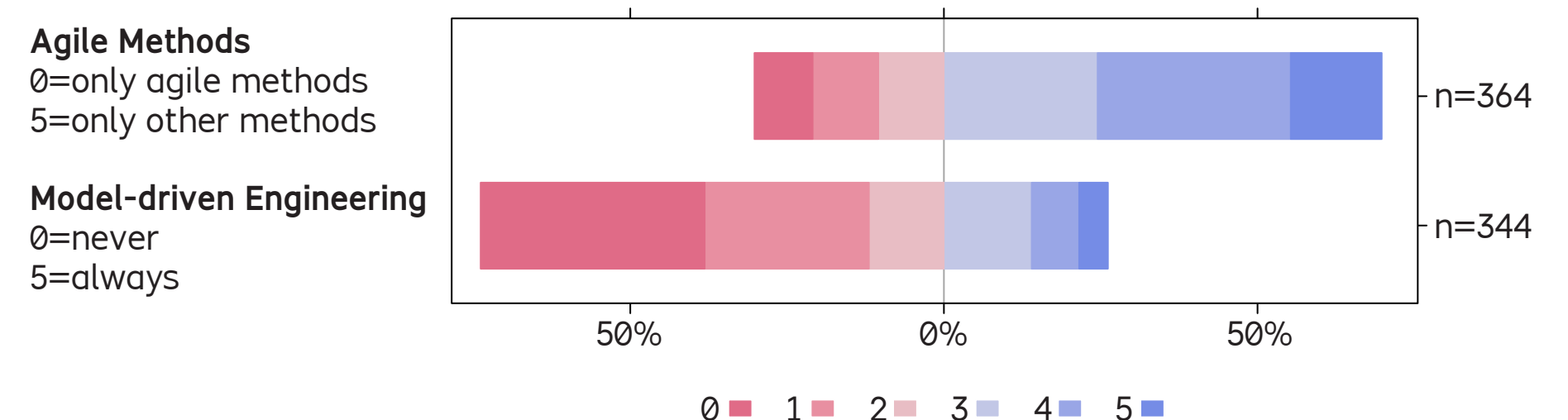
54 %

Media

transitions between media are common

paper (18 %)

Revision

computer (39 %)

tablet (< 1 %)

77 %

analog (58 %)

digital (40 %)

Archiving

not archived (62 %)

archived (38 %)

not archived (6 %)

archived (94 %)

Lifespan

several work days

several months

Contributors

more than 3

6 %

3 persons

15 %

51 % — 1 person

2 persons

28 %

Collaboration

Paper is predominantly used alone, whiteboards collaboratively.

Formality and UML

Formality
0=very informal
5=very formal

n=389

UML Elements
0=no UML elements
5=only UML elements

n=384

60%   40%   20%   0%   20%

0 1 2 3 4 5

Agile Methods and MDE

Agile Methods
0=only agile methods
5=only other methods

n=364

Model-driven Engineering
0=never
5=always

n=344

50%   0%   50%

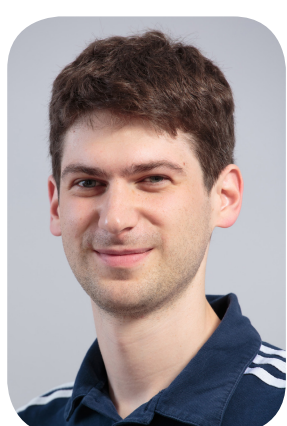0 1 2 3 4 5

Relation to Source Code
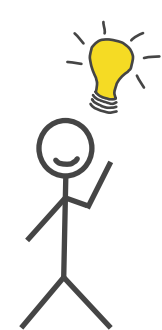
47 % of the sketches are rated as helpful for others to understand the related source code artifacts.

Purpose

Designing (75 %) 1
Explaining (60 %) 2
Understanding (56 %) 3
Analyzing Requirements (45 %)

Team Size

11 % work alone
8 % with one colleague
19 % with two colleagues
40 % with 3 to 9 colleagues
15 % with more than 10
5 % with more than 100

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(i) Further information

Sketches and Diagrams in Practice
Sebastian Baltes and Stephan Diehl
FSE 2014

http://st.uni-trier.de/survey-sketches

Participants

- 394 software practitioners reported on their last sketch/diagram
- majority from Germany and USA
- 52 % software developers
- 22 % software architects
- median work experience 10 years
- various company sizes and sectors

Universität Trier
Software Engineering Group

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