

## Qualifizierungsperspektive für Ingenieure

42 @ IG Metall

Max Senges - 30.9.2021

### Executive Summary

- Develop Tech Talent: 42 Wolfsburg will educate the next generation of ready-to-work software engineers (150 - 200 per year).
- 2. Values, Participation & Governance : At 42 we are a student-centered and community centered organisation aiming to maximize participation.
- 3. Outlook Skills & Portfolio based Hiring : Use peer-validated soft skills and automated certification vs. traditional academic merits and formal programs.



# Develop Tech Talent

### 42 is a Global Education Movement

- 42 opened in Paris in 2013
- One of the most rigorous software engineering education methods
- Today: 32 campuses in 22 countries worldwide
- More than 10.000 students



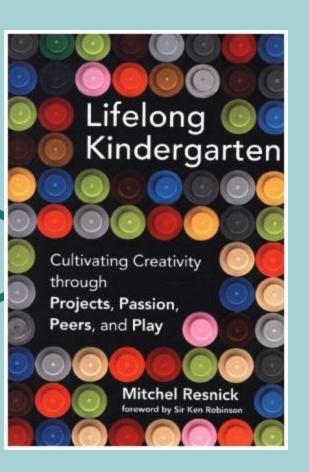
# 42 Learning Approach

We train top software talent in approx 18 months as full stack junior developers and those who choose to continue 1-3 years get hired as specialized software engineers (master level).

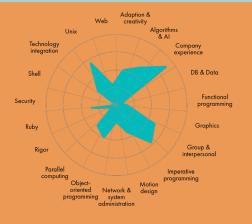
No professors, no lectures, no certificate!

BUT project-based entrepreneurial learning → Proven Competence → Responsible problem solvers

AND Peer-Learning  $\rightarrow$  Social Skills



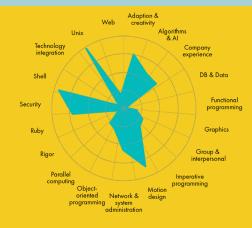
# Show me some alumni profile examples



### Security expert This student started in 2014. He got hooked to

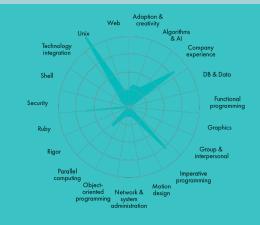
cyber security after a conference organised by the school. He never looked back and worked towards becoming a security expert since then. And he did. This is part of the set of skills he decided to grow:

- C .
- Assembly .
- Reverse engineering
- System and network administration .
- Security breaches detection, correction .



Entrepreneur This student started in 2013. During her journey through the curriculum she decided that she wanted to start her own company specialized in A.I. with her teammates and they have been successful ever since. This is part of the set of skills he decided to grow:

- C
- C++
- Swift
- Artificial Intelligence
- Entrepeneurial skills



### System engineer This Student started in 2014. She knew from the

start that he wanted to be a system engineer. She took every opportunity and project to work towards this goal. This is part of the set of skills she decided to grow:

- $C^{++}$
- Kernel development

### Our students have the right Mindset

### Teamwork

Through peer-to-peer learning and group projects, 42 Wolfsburg students learn how to work in teams, communicate effectively, manage their time, advance projects, resolve conflicts, amongst other valuable collaborative skills.

### Creative problem solving

Focusing on specific coding languages is restrictive and not future-proof. In 42 Wolfsburg, students need to be creative and solve complex problems from day one. Our students learn how to learn

### Rigor

42 Wolfsburg students can both understand a problem on a big picture level while also having great attention to detail. They understand a software needs to function 100% and will strive for that no matter how many tries it takes.

### Passion & Autonomy

To progress in 42 Wolfsburg's rigorous selection and studies, students need to love what they do and demonstrate a high level of curiosity and determination. They enjoy being challenged and can be quite resourceful.

# Shape the Curriculum for the #nextGenerationSoftwareEngineers

# Introducing SEA:ME

Over the next 1 year we will orchestrate the 42 specialization on Software Engineering Automotive & Mobility Ecosystems (SEA:ME).

Our fellows from academia and industry will collaborate cross-organisationally to develop and pilot the projectbased learning challenges.

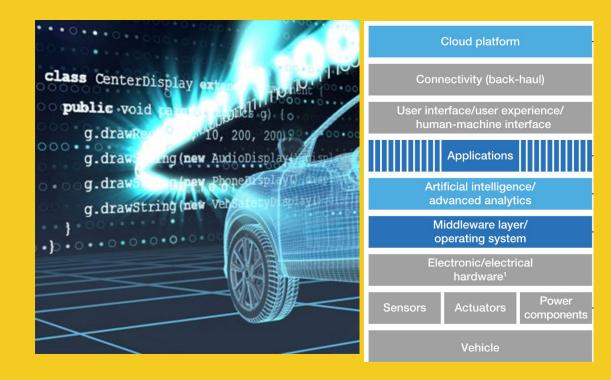
After we successfully implemented the curriculum in Wolfsburg the program can be scaled to 33 schools and more than 10,000 students.



# Software Engineering Automotive (SEA)

The full digital automotive tech stack is the next innovation engine.

Co-developing the open curriculum will allow our partners to shape the #nextGenerationAutomotive

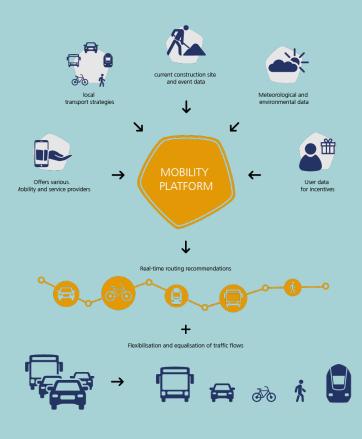


# Mobility Ecosystems (ME)

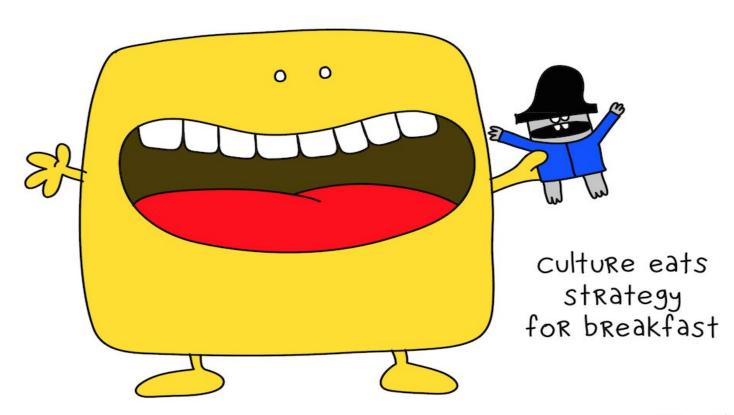
Strong case for **Open Standards** : Interoperability (Car2X+ across borders)

Strong case for **Open Source**: Safety & Security are weakest link games

**Better Together.** The German Automotive has the opportunity to lead internationally.



# Values, Participation & Governance



@gapingvoid

# Radical inclusion.

42wolfsburg.de

We are sailing under all colors, genders, and ages. We build for everyone. We care for each other.

# We build for participation.

Build bigger, not smaller tables. Help others to be their best self. Be liberal in receiving messages.

### Use tech for good.

We must continuously assess and discuss the whys and hows of our projects to maximize good impact. Always challenge the why.

### Sharing and gifting.

We give constructive feedback. Feedback is also a muscle to train. Open source is awesome for learning.

### Take ownership.

Own your stuff and leave things cleaner than you found them. We are in this together.

### We are strict but fair.

Rules are here not to limit you, but to help yourself and others.

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### Live freedom of expression.

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Speak your mind and respect others. Assume good intentions. Be aware of your own bias and other perspectives.

### We learn to live a good life.

Learn hard, play hard. Savoir vivre. We learn to be free to choose the lives we want.

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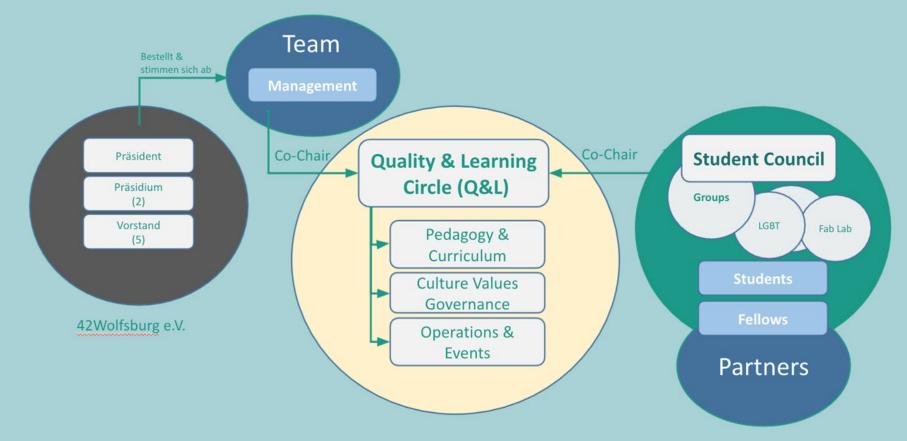
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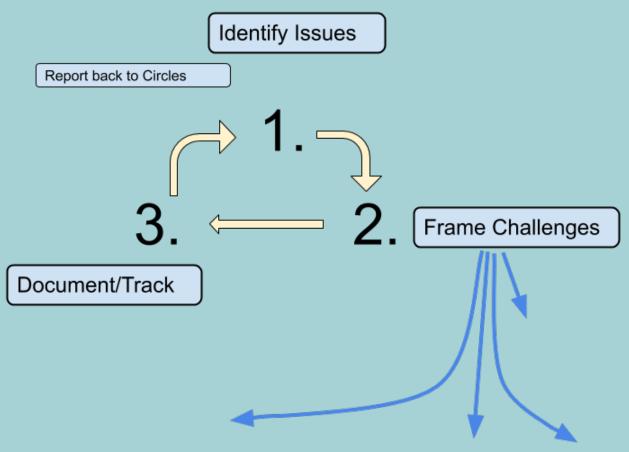
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### Governance





Stakeholders working on solutions

# Outlook: Skills & Portfolio based Hiring



#### Skills-based hiring

### How Eliminating Degree Requirements Can Save You Time, Money, and Turnover

### How to: Use GitHub to Find Super-Talented Developers



Recruitment





Freelance Journalist and Content Writer

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### Activity Traces and Signals in Software Developer Recruitment and Hiring

#### Jennifer Marlow

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#### ABSTRACT

Social networking tools now allow professionals to post and share their work in online spaces. These professionals build reputation within a community of practice, often with the goal of finding a job. But how are the visible traces of their actions and interactions in online workspaces used in the hiring process? We conducted interviews with members of the GitHub "social coding" community to understand how profiles on the site are used to assess people during recruitment and hiring for software development positions. Both employers and job seekers pointed to specific use

#### Laura Dabbish

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23]. The pace of recruiting and career development in online production communities seems to be accelerating with the emergence of social media, evidenced by discussions among developers online sparked by blog posts such as one asserting that "GitHub is your new resume" [3].

In many online peer production environments, social networking functionality is now tied directly with the work artifacts being shared or collaboratively developed. This means contributors can get moment to moment updates obout athors? actions an artifacts and interactions, affording

# **Skill & Portfolio Based Hiring**

