Frontend Best Practices 2022
Spring Event

Code Reviews

Markus Stolze

Director of Studies - CAS Frontend Engineering, MAS HCID, CAS FEE Advanced
Frontend Best Practices 2022 (Spring)

Code Reviews

18:00 Presentations

• Intro: Markus Stolze, OST

• Code Reviews @ Snowflake (Web Agency): Nicolas Karrer

• Code Reviews @ Swisscom: Dominique Bartholdi

• Code Reviews @ Axelra (Tech Venture Builder): Lucas Pelloni

• Code Reviews - Results from empirical research: Prof. Dr. Alberto Bacchelli (Univ. ZH, IFI)

• (Farhad Mehta, OST: CodePanorama.io; Frieder Loch, OST: CodeCity)

19:45 General Q & A + Discussion

20:00 Meet the Speakers - Wonder.me (Open-End)
Code of Conduct

• Online conference/meeting: Mute your mics, video if you want (network?)
• Using welcoming and inclusive language (also Chat)
• Being respectful of differing viewpoints and experiences (also Chat)
• Gracefully accepting constructive criticism (also Chat)
• Showing empathy towards other community members (also Chat)
• Focusing on what is best for the community (also Chat)

• Q&A / Discussions
  Try to learn, not to proof something
  Start with “QUESTION”
  + Short description in Chat
Frontend Best Practices - Welcome

CAS Frontend Engineering

CAS FEE // CAS FEE Advanced

CAS FEE: Frontend Team Member

- Wednesdays 17:15 – 21:50 (Rapperswil)
- Start: KW 17: Wed. April 27th 2022
- Reg. DL: March 27th 2022
- Duration: 38 Weeks / 9 Months

CAS FEE Advanced: Team Lead

- Tuesdays 17:15 – 21:50 (Rapperswil)
- End: KW 16: Wed. April 18th, 2023
- Reg. DL: June 30th, 2022
- Duration: 32 Weeks / 8 Months
Mark Your Calendar

Frontend Best Practices 2022 (Fall) Tue. Sept. 6th 18:00 – 20:00

Frontend Best Practices ’22 - 2

**Tuesday Sept. 6th 2022; Dienstag 6 Sept. 2022 - 18:00 – 20:00**

Topic Accessibility
FBP 22 Spring: Code Reviews - Intro
Code Reviews are Important

aj @ajlkn
Best part of being a solo dev is never having to defend your decisions. Worst part of being a solo dev is never having to defend your decisions

Jen Kramer

@CAS_FEE; #FBP
4 Whys of Code Reviews

1. Sharing knowledge
2. Spreading ownership
3. Unifying development practices
4. Quality control

https://www.swarmia.com/blog/a-complete-guide-to-code-reviews/

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Expert Opinion

Why not “Code Reviews” (Thomas Kälin, OST & I-AG)

Traditional Code Reviews (F2F meetings)
- Always too late
- Create additional work
- Create additional (detached) documentation
- Frequently not acted on

Pull Requests (better alternative)
- Prerequisite: Linted, tested, …
- Must be small
- Must be quickly reviewed
- Merge only when acted on

Pair Programming (best)

... AND don’t forget other types of reviews & tests
(Git-Based) Code Reviews - Basic Process

https://www.unsizify.com/code-review-not-so-magical-but-it-can-do-wonders

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Code Reviews @ Big Tech

Joke: [https://www.youtube.com/watch?v=r4n-0KYeKQ](https://www.youtube.com/watch?v=r4n-0KYeKQ)
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**Intro**
- What is SwEng

**Culture**
- How to Work Well on Teams
- Knowledge Sharing
- Engineering for Equity
- How to Lead a Team
- ...

**Processes**
- Style Guildes and Rules
- Code Review
- Documentation
- Testing Overview
- ...

**Tools**
- Version Control
- Code Search
- Critique: Google Code Review Tools
- Static Analysis

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Code Reviews – Research Finding(s)

The Use of Code Reviews in Practice (240 German Teams)

- never used – not thought about it: 30
- never used – explicit decision: 8
- currently in use: 186
- was used – faded away: 15
- was used – explicitly terminated: 1

Factors (Code Review Use) and Coefficients:

- Development process not “ad hoc”: 1.7857
- Use of static analysis (code quality culture): 2.0575
- Team size 5 or larger: 1.6489
- Preference to “generalists” instead of “specialists”: 1.2725
- Type of software is neither “games” nor “research”: 18.4912
- Positive error culture: 2.4576
- Team works spatially distributed: 0.7652

Cognitive-Support Code Review Tools
(Thesis 2019)
https://d-nb.info/1204458936/34

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Code Reviews – More Research Findings

“Unprompted” and unsupported Code Reviews tend to ...

... **FOCUS** on

- Understandability (Maintainability, Evolvability) (Ref1)

... **IGNORE**

- Security Issues (Ref2)
- Accessibility Issues

Ref1: What Types of Defects Are Really Discovered in Code Reviews?

Ref2: Code Reviewing as Methodology for Online Security Studies with Developers – A Case Study with Freelancers on Password Storage
HTML Code Reviews

Mark Steadman @Steady5063
It amazes me how many dev teams do not include any real review of HTML during a code review. It is purely the JavaScript and the overall functionality of it. This, in my opinion, is a MAJOR reason #A11y issues continue to grow in agile environments #webdev #Accessibility

 Jen Kramer
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