Turning humans into developers in a post-Covid world

... and making sure they stay humans, too



Julien Fiegehenn (simbabque) The Perl and Raku Conference 2024 June 24 - June 28, 2024

Question policy

Please hold questions until the end.



Who of you is a developer?



Who of you has trained as a developer?



Apprenticeships in Germany

- Lasts 3 years
- Find a company, go to work
- Go to school
- Often no prior tech knowledge
- Company decides what tech you learn

Should you train developers?



Why train?

Can't find developers

- Small hiring pool
- People won't change languages
- Unappealing location

Make your own

- Lots of people want to be developers
- Don't have an opinion on Perl Cannot be picky yet

What level should we hire?

- Straight out of school
- (STEM) graduates
- Bootcamp graduates
- Junior devs with 1 or 2 years of experience
- Career changer

Preparations

- Clear interview process
- Exact specification of the role
- Work contract needs to be clear
- Budget

Do you have to fill the role now?

Setting expectations

Team

- Open mind
- Patience
- Willingness to explain

Management

Someone needs to train them Return of investment takes time

Stakeholders

- More discussions
- Get low-priority features

Hiring at entry level



Sourcing candidates

- Your company website
- LinkedIn, Indeed will often scrape them anyway
- Lots of people want to get into tech!

Interviewing

"Classic Interview"

- One hour
- People team involved
- Generic technical questions
- Determine if they have the right attitude`

Technical Challenge

- No homework!
- Do it with them
- A couple of hours
- Make it feel like work

Onboarding new people

- Starting remotely is the new normal
- Make sure they feel connected
- Give them support

Training and Mentoring



Developer->new(name => "Julien");

Think back to your very first day on your first job.

Developer->new(name => "Julien");

Think back to your very first day on your first job.

Were you looking forward to the second?

A shift to hybrid working

- Many companies don't go to the office any more
- Your hiring pool is much bigger
- For career starters this sounds great, but isn't always

Mentoring from home



Your roles as a mentor

- Teacher
- Manager
- Boss
- Role Model
- Motivator
- Parent
- Friend

How do I do that from home?

- Be available
- Help them help themselves
- Be patient
- Give advice that goes further than just work

Training from home



Staying connected

- Daily Standup
- Code Reviews
- Pair Programming: VSCode Live Share, Screen Sharing

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Don't overdo it

- Don't schedule calls back to back
- Don't force them to turn video on

Leading from home



Motivation

- Their work matters
- Keep people engaged with interesting work
- Listen to their problems

How to keep track?

- The Calendar is your friend
- Take notes
- Weekly Catch-up Meetings
- Monthly Progression Meetings

Developing people



Questions new trainees might have

- What is expected of me?
- How do I know if I am good at my job?
- How am I doing?
- What do I need to do to get even better?
- How long is the "training program"?
- When do I get harder things to do?
- Why should I stay here?

Challenges when training

- The beginning of their career is scary
- It's not clear what is expected of them
- You can't compare or measure how they're learning
- Keeping track of a team is hard
- If your team is only used to experienced people, juniors could seem "bad"

What is a career progression framework?

Structural document to help employees understand expectations of their roles.

It clearly defines:

- Skills
- Roles
- What's needed to advance
- How that is measured

It doesn't provide:

- a rating system
- a list of hard requirements
- checkboxes to tick

Core characteristics

Mastery

Domain knowledge and technical capability

Impact

The size, scope and value of what they deliver

Influence

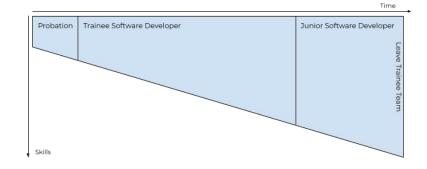
How they positively impact the work environment

Communication How they interact with others

Leadership
How people around them become
better and more impactful

Levels of Progression

- Probation period
- Trainee Software Developer
- Junior Software Developer
- Leaving the Trainee Team



Probation Period

- The first few months at Oleeo
- Settling in
- Learning basic coding (Perl/JS)
- Using the development environment
- Tutorials and some tickets
- Work very closely with the Mentor

Trainee Software Developer

- Longest stage in the progression
- Complexity and size of tickets gradually improves
- Build confidence in technical and communication skills
- Work closely with the mentor for both planning as well as concrete implementation questions

Junior Software Developer

- Become more self-reliant and take ownership
- Think about the bigger picture
- Trust their tech skills and make decisions on their own
- Communicate with technical and non-technical people
- Need less help and know when not to ask for support immediately
- Help others, in particular more junior team members

Leaving the Trainee Team

- Integrated in day to day operations
- Work independently
- The team trusts them
- Move out of the Trainee team

Common remote-first challenges



Personal challenges

- Career starters often don't have good home office space
- Working from home is lonely and disconnected
- You need to be "encouraged" to make friends

Communication challenges

- Afraid to ask questions
- Think chat interrupts others
- Large chat room loses questions, but messaging the wrong person directly wastes time
- People don't know who in the team can help them

Skill challenges

- You cannot watch other people work
- You cannot overhear other people talking about their work problems
- You don't pick up on what professionalism in a work environment looks like

Conclusion

In-house training is a viable solution to address hiring pipeline problems if you follow these steps:

- Carefully plan and prepare the hiring and onboarding process
- Structure career progression, communicate effectively and keep people motivated
- Address the challenges of remote working by making the most of your tools

Thank you!

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Questions?