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CONTENT CREATION CASE STUDY DOCUMENT

Client: RollOut IT

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Title: StrongNode — here's how Rollout web developers are involved in the future of edge computing

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Crypto, or as the people working on blockchain projects like to call it, 'web3', is probably one of the most exciting fields within IT right now.

So naturally, we are happy to see that two Rollout developers are working on the front-end of a new, blockchain-based Infrastructure-as-a-Service technology company, called StrongNode. This project enables us to keep close tabs on what's going on with this interesting frontier.

Sure, crypto prices are down right now, but so is everything else. Crpytocurrency rates look to be shadowing the S&P 500. So crypto seems to be in sync with Big Business now — only with much greater volatility.

Apart from the now well-known Bitcoin and Ethereum, there are thousands of cryptocurrencies and tokens. Most of these coins or tokens exist as 'fuel' for a special digital service that involves blockchain technology.

This is exactly the case with our client, StrongNode, as well.

According to their <u>white paper</u>, centralized cloud computing is facing challenges, and a lot of these pressures could be alleviated with edge computing:

'Increasing use of IoT devices at the edge of the network is producing a massive amount of data to be computed at data centers, pushing network bandwidth requirements to the limit. Despite the improvements of network technology, data centers cannot guarantee acceptable transfer rates and response times, which could be a critical requirement for many applications.'

StrongNode Edge is a modern take on edge computing, changing the data center and cloud computing paradigm to help create an efficient and secure on-demand network.

The key promise of this technology is that we could use the capacities of the billions of IoT products already in use, just like we use a cloud service, like an AWS bucket. StrongNode's token exists so the device owners can be paid rent for using their capacities.

David B. is one of the RollOut developers on the project. As a Rust specialist, he later got to work, through Rollout, on Relate, a 'concept space', which is a new kind of online collaboration and working tool. You can read all about the exciting overseas project here, from the client's perspective.

Now that we had a chance to chat with David B., we had to ask, what attracted him to Rust.

One of the reasons he felt uninspired by JS is the **inconsistency**. There are ways to avoid the common pitfalls of language design, but they are not followed by everybody. Some packages support typescript, some don't. Often the shinier the logo, the more popular the package.

He thinks that a self-respecting programming language should not use stuff like NULL, UNDEFINED or VOID, in the 2020s. This makes it ineffective. And he could go on and on...

Whereas Rust is modern and fast. It's not just a language, you get the whole development environment with test framework, language server, IDE support, and package manager. This makes it an infinitely cleaner and more comfortable choice over JS.

Originally, StrongNode required Rust knowledge as well, this is how Biro got into the picture, but later they assigned him to a React project.

B. made tests and fixed security issues, and rebuilt the sign-in process.

At the moment of the interview, he's working on national ID verification, using an AI powered recognition service that runs on AWS.

Apart from which language they use and how, David mentioned that the StrongNode project has a unique aspect:

'Instead of having central project management where we are assigned to handle tasks, there are only GitHub issues, and all of us are free to assign ourselves to whichever we like, so we can work on whatever we want. Open Source kind of vibes.'

This works best when the issues are separated, of course. But it has some risks. These risks are handled by the project meetings which happen once a week, and it is sufficient for coordinating the work of the three developers.

As with all Rollout projects, this one is also **fully remote**. David works in the small town of Veszprém, close to Lake Balaton, which offers great opportunities to enjoy Nature and spend time outdoors. When he is not coding, he likes to climb rocks in the summertime.

Asking about his 'origin story', he told us that his career in IT started with Counter-Strike.

Back in the days, when he was only a student in elementary school, while gaming at home, his clan mate showed him PhotoShop, which seemed interesting. He started experimenting with it, got to know HTML, and built his first website — obviously about his CS clan.

Not much later he already got paid for doing small projects on PHP, while still being under 14...

Not surprisingly, after finishing high school, he went on to get a BSc in programming and started working as a full-stack developer while studying.

His story is very similar to how Nikolina P., the other Rollout developer on this project got into programming:

'I was ten years old. And everything started with a Mexican singer, who I loved, and I wanted to create a website about him. I had no idea how to do it. I had no idea about Photoshop, just started researching. I was that "computer girl" in my school and I knew how to fix things. '

Nikolina went straight into studying programming and computer science and never looked back. Coding has always felt natural to her. Earlier in her career, she met people who doubted her skills, because women in software development are still quite rare, but these doubts always dissipated after completing the first few tasks.

When asked about her remote lifestyle, she confirmed that she is definitely **not** the 'working-from-home' type.

'When you need a cup of coffee, you just walk into your own kitchen. It's just not the same!'

She is renting a little office together with other developers. She needs the coffee breaks, meeting people, going out to get some air, and just simply not being at the same place all day, every day. (We wrote a bit more about how IT
professionals make the most of remote working here, with a lot of personal examples)

Nikolina confirmed that the StrongNode web portal is still in an early phase.

The key challenges are about making it as secure as possible, while always thinking a few steps ahead. StrongNode has a development roadmap extending into Q1 2024, and the developers won't have much time or space doing redesigns and refactoring.

It will be exciting to see how the project evolves, and if edge computing will become a huge story in the next few years!



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