**Web engineering experience**

1. **What skill or knowledge have you acquired in the past year that has been particularly helpful? What motivated you to learn it? What has the impact been for you and your team?**Over the past year I’ve graduated my PhD degree. The process and the progress of writing of the dissertation powered me with one of the most important personal characteristics, which is skill and knowledge as well, at least, from my perspective, and it is the will. Will to plan, work on a huge project almost alone, at the same time with a responsibility to provide something new, will to believe in myself till the end and will to focus on the target. From technical perspective, I would like to mention the [tool](https://navasardianmichael.github.io/egqi/) I developed. On the other hand, over the past year, and still, I’m in love with the idea of making something that can help people, the result of which are my open-source contributions. Would like to mention some updates in my mindset in IT as well, now I’m redefining my interests in it, trying to think from business perspective, not just deep diving into software and hardware.
2. **Describe your experience of web programming - JavaScript, Typescript, React, CSS and Python in particular.**I have 5+ years of experience in front-end development. Worked on projects of various industries (e.g. health insurance, learning, psychology, mining, website bulding platforms) and applied different technologies (React, Svelte, Next.js, React Native, etc.). Had a chance to work with jQuery as well). Have an experience not only of mentoring, reviewing, organizing front-end learning modules for the high school students, participating in React guiding projects in company-level, refactoring, restructuring and redesigning websites, diving into js bundlers, data visualization and browsers.  
   Being a front-end heavy one, I had opportunity to work with back-end technologies as well (PHP/Laravel, Node.js). Have implemented api endpoints, constructed simple datasets, worked with authorization/authentication, did a variety of third-party integrations (with Facebook, Google, Outlook, Eventbrite, etc.).
3. **Describe your experience building large systems with many services - web front ends, REST APIs, data stores, event processing and other kinds of integration between components. What are the key things to think about in regard to architecture, maintainability, and reliability in these large systems?**Most of the technologies are listed in the answer below. Just some key points I follow when designing a new software or refactoring it:  
   \* The success of component-based architectures depends on how we organize data storing/updating/consuming. Component tree is sensitive to store updates. In this context, one of my loved techniques, which I proved myself in practice is state normalization. Moreover, I have a little [article](https://medium.com/@michaelnavasardyan/implementation-of-normalized-state-in-front-end-application-4076a3f608c3) about it on medium.  
   \* Well-typed system, where each layer of the application has its interfaces, even APIs. It’s not only generates a proxy documentation of the project, but provides an incredible developer experience as well.  
   \* Well-documented codebase, which includes proper .md files, comments (JSdoc and not only), AI instruction files if need.  
   \* Automated tests: in long-term, they save much more time for the team, than it costs.  
   \* Simple, predictable and reliable processes, meaning the flow of tasks. Special care about ci/cd pipelines is crucial for it.