

## About me

My name is Jakub Pradeniak, I'm from Czechia and I'm webapp developer. Currently I'm focusing on web app frontend. I write apps in React but I can achieve the same outcome with pure HTML5/CSS3/JS (ES6).

I studied IT at Palacky University in Olomouc, I haven't finished my degree there, but I got solid understanding of algorithmic math, OOP and general programming patterns. During my studies at UPOL I learned C/C++/C#, Common Lisp and Assembly language.

## Programming and development skills

### PHP

Skill Level: 

I'm writing sever side programs in PHP for over 12 years. I started to learn programming at grammar school and since then I'm self taught web app developer. I haven't used PHP frameworks much, because from the start it looked like overkill for small projects I worked on. After that I created my own solutions. Right now I'm working on e-commerce project.

In PHP I wrote:

- Infinity MVC - PHP framework utilizing MVC architecture and is powering most of BlueNet apps,
- Infinity REST - RESTful server written in PHP 8,
- Templator v0.1 - automatic template system inspired by Plates and Volt,
- Image processing class utilizing ImageMagick (I also made same class with GD),
- and many other smaller or bigger apps.

### MySQL

Skill Level: 

I'm using MySQL as main database system in apps I'm writing for 10+ years. I'm designing the database models and writing queries (mostly in PHP).

### HTML(5)

Skill Level: 

I wrote our very first website using good old HTML 4.1. Now I'm using HTML5, but mostly in some kind of processor which combines prepared elements into functional app (like PHP Templator etc.).

### CSS(3)

Skill Level: 

I'm styling apps UIs for 12+ years now. I like reusability so I'm trying to create elements and classes using BEM system. I also like animations and dynamic stuff made in pure CSS using simple transitions or keyframes for more complicated animations. I like to restyle built-in components like checkboxes, radiobuttons or file inputs with minimum of added elements (pseudo elements ::before and ::after are awesome :)).

### Preprocessors PUG and Sass

Skill Level: 

I can use PUG and Sass on same level as HTML and CSS. In PUG I made some templates for apps which are assembled by PHP Templator. I styled almost every app using Sass until 2022/2021.

### JavaScript

Skill Level: 

I'm programming in JavaScript since 2010. I started with pure JS on ES5 standard, then I was using jQuery for years. When ES6 came out I slowly abandoned jQuery and again started to program in pure JS.

In JavaScript I wrote:

- Thunder - tiny jQuery like framework which works similar to jQuery but fully utilizes power of arrays and is really small,
- Editor (RTE) - rich text editor,
- PageBuilder - overhaul of previous RTE which can edit whole blocks on page and whole pages as well,
- Snowy - tiny program which lets you to start snowing on your page,
- GEngine - simple game engine with limited physics which renders on HTML canvas (designed for games like Tetris or Mario clones),
- Charty - graph plotting,
- and many more utilities and apps.

### CoffeeScript preprocessor

Skill Level: 

I was using CoffeeScript for few years. I built first prototype of Thunder with it and some simple JS for web apps.

### TypeScript

Skill Level: 

TypeScript as superset of JS bringing features of strongly typed languages is great. I evaluate my knowledge of it into mid range, but if needed I can learn it quickly to higher level. Right now I'm trying TS with React.

### ReactJS

Skill Level: 

I started using ReactJS as my main tool for frontend development at the start of 2022. Thanks to my long experience with JavaScript the learning curve is very steep. I dare say that as of now I'm mid-level React developer able to use React classes as well as functional approach using React hooks. Fetching data from API is easy (I programmed our own REST server for these purposes), deconstructing app into reusable components is natural for me, because I was using similar approach with our PHP template processor. Right now I'm working on my own blog using React, PHP and MySQL.

In React I wrote:


- Profotky app - photographers blog and photo bank (something like Pixabay on Unsplash, but with articles as bonus),
- some custom hooks for routinely used functionality like localStorage or cookies,
- single page placeholder website to give info about upcoming app,
- utility to help colleagues with their daily work with clients (something like minutes from meeting - app helps with automatic client data filling, document templates, standardized design for print etc.),
- and many more tiny apps and exercise styled programs.

## React Native

Skill Level: 

I took interest in React Native for Android development. Now I'm learning how to create apps for Android devices.

## Kotlin

Skill Level: 

When I first started to learn Android programming I was using Java, then after long break I tried to migrate to Kotlin, but currently I'm more interested in React Native for my Android apps.

## Java


Skill Level: 

I learned Java at Palacky university. I used it mainly for educational purposes, but wrote some apps in it and dived into Android for first time. I has been 7 years since I programmed in Java.

In Java I wrote:

- Multi platform checkers game using custom UI and min-max algorithm for AI opponent with variable difficulty,
- first simple Android app,
- few more simple applications for my studies.

## C

Skill Level: 

C was second programming language I learned. I was using it mostly for command line programs and utilities. I learned by myself C from great book The C programming language by Kernighan and Ritchie.

In C I wrote:

- Simple game engine for platformers and various 2D games, for rendering I used SDL library,
- text based game inspired by Zork,
- many utilities to help me with day to day work,
- and a lot of tiny programs for various purposes.

## C#

Skill Level: 

I learned C# at Palacky university. It is fun to work wit it, because it is easy to learn language and it is also easy to create windows apps in it. Unfortunately I haven't used it in few years as of now.

In C# I wrote:

- Text based game with multidimensional arrays as maps and pseudo-random events (also inspired by Zork),
- image processing program to batch process jpeg files,
- app for visualization of fractals based on given formula,
- and many more apps I can't even remember :-).

## C++

Skill Level: 

I learned C++ as my third programming language. As self taught programmer I wanted to star developing games so after short research I decided to use C++ for this purpose. Right now I'm using C++ on my journey into depths of UnrealEngine 5.

In C++ I wrote:

- Few simple games fo PC using SDL library,
- some smaller components in UE5,
- and few more command line utilities.

## Common Lisp

Skill Level: 

I learned Common Lisp during my studies at Palacky university. I used this language for education purposes only, so basically it is something like honorable mention in this list.

In Common Lisp I wrote:

- Semaphore controller,
- many academic styled programs.

## UnrealEngine

Skill Level: 

I'm learning how to be game developer and it is great experience!

## Figma

Skill Level: 

I'm prototyping all of our apps in Figma. This great tool saves so much time. Right now I'm struggling with memorization of all necessary shortcuts and combinations of components (good that I have printed cheat sheet :-).

### Webpack (bundling in general)

Skill Level:



I know how it works and I know what to do, but I'm not an expert, when needed I'm consulting with Google :).

### Jest testing

Skill Level:



I'm using Jest for unit testing of my JS apps. Now I'm learning how to write more complex test to check my React components.

### Git

Skill Level:



For version control I use Git and for storing my repos to remote I use GitHub.

*I'm using Visual Studio Code for web apps development, Android Studio and VS Code for Android apps development, Visual Studio 2019 for C/C++ development and UES for game development (learning now). When I work with graphics I'm using GIMP, Krita and Inkscape, for photo editing I use Polar alongside with GIMP. When I'm modeling in 3D I use Blender.*

*At all of the skills above I evaluated my skill level according to my personal opinion/feeling.*