## Martin Novák

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## **Profile**

Freelance full stack developer with almost 20 years of experience. During my career, I was working with a range of technologies and I was solving different problems. I also found a couple of companies/launched some projects on my own.

I worked mainly on 2D algorithmic visualisations, 3D modelling tools, GIS (geographical information systems), iOS/macOS applications and web backend/frontend, and I touched web3 development.

# Experience

#### **LUUCY.CH, 3D, AND BACKEND DEVELOPER - 2018-2022**

I developed backend then I moved on developing 3d modelling tools for architectural prototyping. I also managed visualisation of GIS artefacts in 3D.

I built and maintained the initial backend application. I used Kotlin/Spring as working environment, and Postgres/Postgis for managing data.

3D - we used CesiumJS framework for managing GIS data in 3D. On the top CesiumJS, I built a 3D modelling tools framework for creating elements in the scene. I also managed synchronisation of the scene with the backend and various other data sources. I'm certified CesiumJS developer.

#### ÆR AR PLATFORM, FOUNDER – 2020-NOW

ÆR is an augmented reality platform that manages artworks/assets and displays them on your phone. This is my side project.

I developed iOS client, backend in Java/Micronaut, and admin part in Angular. I also experimented with NFT minting and management on this project.

#### MYSASY, IOS APPLICATION - 2020-2021

I developed an iOS fitness application MySASY for tracking your health by measuring and evaluating your hearth rate.

### STORYHACKERS.COM, FRONTEND, BACKEND - 2019-2021

Storyhaclers is an e-learning website providing courses in well-being.

I built the site with Angular on the front-end and node/NestJS/Postgres on the backend.

### **CODEMAGE - FOUNDER, UNREAL ENGINE DEVELOPER – 2018-2019**

I co-founded a company that developed 3d kitchen editor in Unreal Engine.

I helped with development in Unreal Engine and made some supporting backend services.

#### **REPRODUCTIVE MACOS APPLICATION, USERBRAIN - 2018-2019**

I developed a macOS application BeProductive for task management using pomodoro method.

#### **OPTICAL NETWORKS VISUALISATION TOOL, ZENSYS – 2017-2017**

Visualisation tool for optical networks took GIS data from backend database and displayed a tree-like structure of the whole network. It was also possible to edit various network properties.

I was working on the front-end part of the project. I used Angular and D3 for data visualisation.

#### TEAMX, IOS APPLICATION, POINTX, ZENSYS - 2015-2017

TeamX was a platform used by Czech government quick response forces in police and fire department for coordinating teams in field in case of emergency.

I was developing parts of the iOS client interacting with ArgGIS maps.

#### BIKESHOP.EU E-COMMERCE BACK OFFICE, BAKESHOP.EU - 2012-2016

<u>bikeshop.eu</u> used the back office to manage bike parts stock. The system synchronised stock and orders with eBay, Amazon and Prestashop. It also synchronised stocks from external suppliers and warehouses.

I developed the whole system. For the frontend, I used with YUI/vanilla Javascript and Angular. For the backend I used Spring/Java/Postgres with custom connectors to external services.

## **EXIF EDITOR, OWNER – 2011-NOW**

Exif Editor is a macOS application that allows you to edit image metadata. I developed the application, and I'm selling it on the AppStore.

#### **CORAABIA - FOUNDER, BACKEND DEVELOPER, CODEMAGE - 2010-2015**

I co-founded a company that developed an online trading card game Coraabia. We had on the largest wikis - coraabopedia.org. There were also some fantasy books written on the theme of the imaginary world of Coraabia.

I lead development of the backend. I managed development of payment systems (Paypal, Braintree, Fortumo). I created a management server for player assets and payment transactions. I also connected to gaming partners (Kongregate, Gamigo, Syncopate).

#### **OPENHRE BACKEND DEVELOPER, BROWSERSOFT INC. – 2009-2012**

OpenHRE was a health care platform for exchanging patient data between hospitals. It was based on HL7 standard, and as a small company, we captured 20% of the US market share at the time.

I was working on developing and maintaining open source components of OpenHRE system. This included Liferay customisation and some Liferay portliets, Pentaho,

customisation of OpenSSO and integration of the login flow within the platform. I also developed RPM installations.

#### TRACK CHARTS GENERATOR, BROWSERSOFT INC. - 2007-2009

For BNSF Railways, we developed a convertor of GIS data to printable charts/interactive PDF that was helping their engineers to navigate through the tracks network.

I was working on parts of processing data extracted from the database. I used XSLT for some of the preprocessing, then custom Visual Basic .NET code, CSP solver for processing tracks order and at the end I developed code for drawing the SVGs and interactive PDFs.

#### PUAKMA VORTEX, WNC PTY. LTD. - 2004-2007

Puakma Vortex is a custom Eclipse based IDE that helps developers of Puakma Tornado application/web server.

I made the IDE as an Eclipse plug-in that was keeping track of the project and synchronised the compiled files with the server. All was written in Java.

## Other activities

#### **NETWORK ADMINISTRATOR, CTU DORMITORIES (2001-2004)**

I was volunteering as a network administrator for Student Union at Czech Technical University in Prague. I was also elected as a head network administrator in the dormitory and a member of networking administrative board for all dormitories.

## Education

MS in Computer Science - Czech Technical University in Prague

## Other Skills

I speak fluently Czech, English and Spanish. I know a little French.