# CURRICULUM VITAE
## JĘDRZEJ LEWANDOWSKI

*FULL STACK DEVELOPER/ARCHITECT AND MEDICAL STUDENT*

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*Motto: "Man Has No Good in Himself and Can Glory in Nothing" ~ Thomas. A. Kempis, The Imitation of Christ.*

## EDUCATION

2014 - PRESENT — MEDICAL UNIVERSITY OF WARSAW, SECOND FACULTY OF MEDICINE, POLAND.
Currently studying medicine, expected to graduate in 2021.

## IT WORK EXPERIENCE

2004 - 2017 — SELF-TAUGHT PROGRAMMER.
I was passionate about software development and studying algorithms since childhood, did thousands of hours of hobby programming. Most important hobby projects:

- 2006-2016: **Websites for local organizations**. Webdesign + backend. Stack: *HTML/CSS, PHP/CakePHP, Worpdress (custom themes, custom plugins) + GIMP + Corel*
- 2009: **Mailing system for local hospital**. Biggest challenge: cooperation with IT
- 2008-2012: **MUD (text-based online multpliayer game)** — the biggest hobby project. It consisted of almost 60ksloc over 5 versions. I have learned advanced OOP design patterns and tested multiple distributed app design approaches (lifecycle, eventbus, reactive/observable). Latest version included an experimental 3D client written in Unity. Stack: *SVN->Hg->GIT, Java SE, advanced concurrent programming, Jetty/Netty, custom WebSockets, SQLite, PostgreSQL, SSH, remote deployment.*
- 2015: **Distributed photo library system**: Management of huge photo library distributed over several external HDDs. The main tasks of the system were: segregation by event, removing duplicates, synchronizing the primary-backup hdd pairs, keeping central index. Stack: *Java SE/Swing*
- 2015-2017: **domestic heating management system**. Stack: *ESP32, ST ARM, Java SE, RabbitMQ, mesh networking*

2016 - 2018 — CHIEF OF IT DEPARTMENT AT ACADEMIC CATHOLIC STUDENT ASSOCIATION ASK SOLI DEO (NON-PROFIT) .
Projects made at ACS Soli Deo include but are not limited to:

- Designing the website solideo.pl (which required custom backend) and posters for events.
- Implementation of HR and internal assets management system based on NextCloud.
- Music driven lighting system for big events (150+ participants). One of the responsibilities I have had at Soli Deo was to design and supervise lighting and sound equipment at events. As a hobby project, I have created a lighting system for large halls. This was a software and hardware project. A software DSP module was doing spectral analysis and feeding RGB data into a hardware modules. Hardware was the most innovative part of this project. I have developed an extremely cost-effective way of sending real-time RGB signal over long distances with minimal noise (instead of using voltage-driven DMX that requires shielded and capacity-

adjusted expensive cabling, the system was using a current-loop circuits for which a flat telephone cable is enough to carry the signal).

2018 - TODAY — ARCHITECT AND DEVELOPER OF WISE AT WISE-TEAM.IO

***Stack**: Steem blockchain + Typescript/Node.js/browser + Vue.js + Docker/swarm + PostgreSQL/PostgREST + Redis/socket.io + Hashicorp Vault + Travis + Ansible + Logz.io*

Wise-team.io (https://wise-team.io/) is a blockchain startup. We run a Steem blockchain witness node and maintain two decentralized apps for Steem blockchain: Engrave and Wise. I am the architect and the leading developer of the WISE system. Wise is a platform that allows steem users to delegate their voting power to others under strictly defined and publicly visible criteria. It consists of a common library, a cli tool, a voting webapp, a delegator webapp, public database api, daemon service for non-technical users and a vault server for cryptographic key management. All services run in a self-deployable and self-managing cluster. All packages are open source and published to npmjs.com registry or to Docker cloud. Wise app: https://wise.vote/, the explanation: https://docs.wise.vote/, and the sources: https://github.com/wise-team.

I have improved on multiple skills at Wise-team, such as brainstorming and collaborating in a team. I have presented our ideas and the product to the public at the Steemfest conference in autumn 2018. Technical skills mastered at Wise include: Typescript+Javascript full stack, Vue.js, Docker, GIT, continuous integration (Travis CI), continuous deployment (Ansible), TDD.

05.2019 - TODAY — (NON PROFIT PROJECT) PERSONALIZED PATIENT ADVICE SYSTEM FOR VOIEVODSHIP REHABILITATION HOSPITAL FOR CHILDREN IN AMERYKA

***Stack**: Firebase (Functions/Firestore/RealtimeDB/Auth/DynamicLinks/Hosting) + Typescript/Node.js/browser + Vue.js + + Android native + Google Play store + Travis*

The idea behind this project was invented by two doctors on the Allergology Ward of the hospital. Patients and doctors on this ward have to cope with two problems: first — allergic test have long evaluation time and the results arrive at the hospital after patient discharge; second — the advice is often complicated and hard to remember by the patient. I was asked to develop a system that allows patient's parents to view medical advices on their mobile devices. The advices are created by the doctors in the hospital and then, a deep link to the app is sent to the patient's parent phone. Whole system uses a serverless approach with database, cloud functions and authentication provided by Firebase. Currently the system consists of a native Android app for parents and an electron based standalone desktop app for medical professionals. iOS app for parents and user management app are due to be done. This is a non-profit and open source (GPLv3) project: https://github.com/Jblew/amerykahospital-personalizedadvice

## IT SKILLS

Highlights: Fullstack (Typescript + Vue + Node.js) + Java SE + Blockchain + cloud

### Languages

★★★★☆ Typescript + Javascript (TOP 8 Typescript developer in Poland on Codersrank.io). Browser + Node.js

★★★★☆ Java SE 8 + advanced concurrent programming

★★☆☆☆ Python (scripting, data processing, interactions with hardware like oscilloscopes, DDS, custom sensors).

### Frontend

★★★★☆ Vue.js + vuex + vue-router

★★★☆☆ React + redux

★★★☆☆ Webpack

★★★★☆ HTML5 + CSS3

★★★☆☆ Design: GIMP + Affinity Designer (vector)

★★★☆☆ Bootstrap

★★★☆☆ Material design (+Vuetify)

★★☆☆☆ SASS (SCSS)

★★☆☆☆ jQuery

### Tools

★★★★☆ Docker + docker swarm
★★★★☆Travis
★★★★☆ TDD (JUnit, Mocha, Jest, Tslint, Sinon, Istanbul/nyc, Codecov, Code Climate)
★★★★☆ NPM package publishing with (pipeline: travis + semantic-release)
★★★☆☆ Git + github + conventional commits
★★★☆☆ Ansible
★★★☆☆ Linux (Debian family)
★★★☆☆ BASH + ZSH
★★☆☆☆ Hashicorp Vault

### Databases

★★★★☆ PostgreSQL + query profiling + NoSQL mode
★★★☆☆ mSQL/MySQL
★★★☆☆ Firestore
★★☆☆☆ Redis

### Backend services

★★★☆☆ OAuth (custom flow for Steemconnect with Passport.js and Hashicorps vault)
★★★☆☆ ExpressJS

### Cloud/serverless

★★★☆☆ Firebase serverless / GCP elements
★★★☆☆ Bare metal server administration
★★☆☆☆ Amazon AWS (S3, EC2, IAM)
★★☆☆☆ Docker Swarm + bare metal server administration

### Blockchain

★★★★☆ Steem Blockchain (Steem dApp architect)

### Misc

★★★☆☆ Embedded programming: Platform.io/Arduino. IC families: STM32, ESP32, ATM8, nRF52
★★★☆☆ Cryptography with an understanding of several algorithms and associated threats. Did experimental implementations of these. I am also currently an administrator of two Hashicorp Vault servers at Wise.
★★☆☆☆ Operating measurement equipment: digital oscilloscope and DDS function generator. (Used this mostly for physics experiments at home.)
★★☆☆☆ Electronic circuit design and board prototyping.
★★☆☆☆ Lan networks with complicated mesh setup

## LISTED ON

TOP 9 Typescript in Poland, TOP 11 Vue.js in Poland on Codersrank.io (https://profile.codersrank.io/user/jblew).

## LANGUAGES

English C1

## INTERESTS AND EXTRACURRICULAR ACTIVITIES

- Programming since I was 9 years old
- Interested in oncology - currently finishing a systematic review on pericytes and angiopoietins.
- Hobbies include piano, surrealistic art and reading psychological sci-fi literature.
- I enjoy small hands-on projects where I first plan out a complex design and then build it by hand. I have built electronic devices that I use in day to day life and art installations (including sculptures). They operate on IT systems and software which I have designed.
- Active member and elected Vice-chairman (2016-2017) of Academic Catholic Student Association Soli Deo.