

# Dmitry Vesnin

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Senior Software Engineer

## Skills

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- Proficient
  - C++, JavaScript/TypeScript, Linux, Git
- Experienced
  - C, Make, Bash, NodeJS, Yocto, Angular, SQLite, MongoDB, OpenGL ES 2
- Familiar
  - Go, Java, React, Docker, Jenkins, ElasticSearch, Selenium

## Experience

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Senior Software Engineer	741 Studios	May 2022 - Present
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Ventilator		May 2022 - May 2024
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- Stack: C++, C, Embedded Linux, SQLite, Bash, Yocto, Make, Nuklear, OpenGL ES 2
- Developed software for control panel of ICU ventilator
- Designed and implemented event-driven multi-threaded architecture based on CSP and message passing inspired by Go concurrency model
- Patched Linux kernel to adapt it for device hardware and to add support for external calibration device
- Implemented GUI using Nuklear and OpenGL ES 2, data persistence using SQLite, serial communication over UART with other hardware modules, networking over TCP via UNIX sockets
- Introduced profiling and dynamic analysis into testing runtime and implemented optimization and bug fixes based on gathered data
- Prepared application runtime environment using Yocto and Bash
- Gathered medical knowledge from practitioners and pushed software feature improvements based on it

Lecturer	IT-College Yekaterinburg	Feb 2021 - Present
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- Taught following subjects:
  - Introduction to programming in JavaScript and Java
  - Algorithms and data structures
  - Object-oriented programming
  - Object-oriented design, SOLID and design patterns
- Mentored students on their programming projects
- Integrated active and peer-to-peer learning techniques into teaching programming subjects
- Developed internal tools using NodeJS and Go

Software Engineer	Exadel	Mar 2019 - May 2022
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Internal tools		Mar 2022 - May 2022
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- Stack: NodeJS, Selenium, Jenkins
- Developed a Jenkins job to parse corporate e-mail statistics from SPA every day

Mercer		Mar 2021 - Mar 2022
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- **Stack:** Typescript, NodeJS, Angular, Express, MongoDB, ElasticSearch, NgRx, Ramda, Jasmine
- Implemented and modified features that cross-cut several backend services and frontends
- Optimized MongoDB collections and queries, implemented migrations to more optimized schemas

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AMC

Mar 2019 - Feb 2021

- **Stack:** Typescript, Angular, NgRx
- Created complex UIs including filters, charts, tables for internal analytical applications
- Developed and maintained shared library:
  - Extracted recurring components from different projects;
  - Communicated with other devs to unify and improve interfaces and help them apply updates;
  - Developed tools and documentation for help with updating projects to new library versions;
  - Created internal application to view library docs similar to Angular Material docs
- Implemented frontend for internal SSO system and integrated it into frontends of all projects

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Junior Software Engineer

741 Studios

May 2018 - Dec 2018

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- **Stack:** JavaScript, Java, React, Redux, SQLite
- Developed web application for building ventilation blueprints and specifications
- Directly communicated with client to gather functional requirements and plan work

## Education

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Yekaterinburg, RU

Ural Federal University

2015 - 2019

Bachelor of Information Systems and Technologies