

DENNIS KRASNOV

FULL-STACK SOFTWARE ENGINEER

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EDUCATION

Bachelor of Computer Science
University of Waterloo
2018 - 2023

LANGUAGES

Java, Kotlin, Spring
NodeJS, Python
React, Hooks, Redux
HTML, CSS, JavaScript
Dart, Flutter
Rust, C++, C

TECHNOLOGIES

Linux, Docker, Kubernetes
Git, CI/CD, Shell Scripting
Kafka, Axon Framework, NATS
PostgreSQL, Redis, Firebase

ARCHITECTURE

Object-Oriented, Functional
Event-Driven, Microservices
Domain-Driven Design

SKILLS

Full-stack Development
Diagrams, Documentation
Test-Driven Development
User Experience Design
English, Russian, French

INTERESTS

Powerlifting
Nutrition
Samoyed Dogs

WORK

Software Engineer | WFHomie | May 2021 - Aug 2021

- Created fault-tolerant shipping label generator using NodeJS, Postgres, Canada Post API. Automation slashed typical order processing labor from 55h to 2h
- Introduced Rx-based state management to React webapp which decoupled UI from database code and enabled real-time updates without a page refresh
- Invented and championed new design for onboarding flow which resolved 12 backlog tickets. Project became the company-wide priority for two sprints

Software Developer | CGI | Jan 2021 - Apr 2021

- Migrated Spring queue processor service from RabbitMQ to Solace PubSub+
- Configured resilient Consul services using templated systemd on RHEL servers

Software Engineer | Ultimate Software | Sep 2019 - Dec 2019

- Developed OAuth2 authorization microservices in identity platform team
- Added permissions claim to JWT on critical-path ForgeRock identity gateway serving 51M users, refactored to prevent zero-trust authorization recursion
- Uncovered an architectural issue in the event sourcing write model which breaks future compatibility, documented and presented solution to the team

Freelance Software Developer | Krasnov Tech | Jul 2016 - Aug 2019

- Acquired customers, gathered requirements, managed customer expectations
- Planned, designed, developed, released, and maintained following products:
- sgbiotec.com – store selling lab-grade fluorescent proteins; React, Shopify API
- Pocket Trade Show – marketplace platform for salesmen; PHP, MySQL, AWS S3

PROJECTS

Diet Driven | Calorie counter mobile app and backend

- Formulated product idea, designed UI and UX flows, validated with target users
- Designed distributed transactions for data import using orchestration sagas
- Flutter, Dart, Rust, Uringy, NATS, event sourcing, microservices, kubernetes

Uringy | Async runtime for Rust based on io_uring

- Library for writing concurrent applications with non-blocking IO syscalls
- Uringy can handle 115k HTTP request/sec on one thread, 14x faster than Express
- Rust, io_uring, Linux, thread-per-core architecture, synchronization primitives

Neural Network Driving | Autonomous car simulation

- Built reinforcement learning algorithm and driving physics engine from scratch
- Won gold at Canada-Wide Science Fair, shortlisted for Intel International Science Fair, presented to Justin Trudeau at invite-only PM's Science Fair
- Java, JavaFX, artificial neural network, neuroevolution, multi-threading