

Lev Karatun

Full-Stack Engineer

I'm experienced in development of a large scale distributed application (AWS Backup), React + node.js library catalog application, teaching CS to university students, and writing C++ as part of my PhD research. I'm driven by new technologies, application performance, and writing clean, testable code.

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WORK EXPERIENCE

Software Development Engineer Amazon Web Services

10/2020 - Present

Achievements/Tasks

- Develop AWS Backup: a large-scale distributed system for backing up and restoring customers' data.
- Key contributor in the AWS CloudWatch integration project that enabled customers to monitor their backups and get notified in case of failures.
- Key contributor in the Backup Compliance project.

Full-Stack Software Engineer Bibliocommons Inc.

01/2019 - 10/2020

Achievements/Tasks

- Develop front-end and back-end of a library catalog application (BiblioCore) using React (server- and client-side rendered), Redux, and node.js.
- Key contributor to the migration of one of the applications's most used pages from Ruby on Rails to React + node.js.
- Migrated the catalog application from React 15 to 16.
- Implemented code splitting using loadable-components which resulted in a 35% bundle size reduction.
- Created an npm package to standardize automated code linting rules for use across different teams, incorporated it in the CI/CD pipeline.
- Created a Babel plugin to enforce use of attributes used by QA.
- Reorganized development environment which resulted in reduction of setup time from 30 to 10 minutes.

Teaching Assistant: Programming On The Web (JavaScript), Introduction To Programming (Python) University of Toronto (Department of Computer Science)

01/2014 - 12/2018

Toronto, Canada

Achievements/Tasks

- Taught JavaScript concepts, HTML and CSS responsive layouts, node.js, and Bootstrap to students in tutorials.
- Explained data structures and algorithms as well as debugging principles to students in tutorials using Python.
- Decreased time spent on marking students' assignments by 80% by creating a suite of unit tests and integration tests using Jest, jsdom, and Cypress.

Junior IT Systems Engineer CROC Inc.

10/2012 - 08/2013

Moscow, Russia

Achievements/Tasks

- Administered Linux servers, prepared technical and operational software documentation.
- Installed, configured and supported IBM middleware applications (IBM DB2, WebSphere App Server, MQ).

SKILLS

React

node.js

TypeScript

AWS

GraphQL

Redux

Webpack

AST

SQL

MongoDB

Python

Java

EDUCATION

PhD Candidate University of Toronto

09/2013 - 12/2018

Toronto, Canada

Thesis

- Numerical modelling of plate tectonics (C++)

B.Sc. and M.Sc. Degrees Moscow State University

09/2004 - 06/2010

Moscow, Russia

Specialization

- Computer technologies in geology

PROGRAMMING PROJECTS

PairUp (11/2018 - 12/2018) [🔗](#)

- A way to find events to join, or people for your event
- Full-stack application built on next.js, GraphQL, node.js, express, passport, postgres

Movie data visualization (04/2018 - 10/2018) [🔗](#)

- A dashboard visualizing movie data using D3 on the front end and MongoDB + Express running on node.js on the back end.
- Data is presented using three types of diagrams (scatter plot, map, bar chart) that allow filtering and user interactions.

Memory game (05/2018) [🔗](#)

- A memory card game powered by React

AWARDS

Laurence Curtis Teaching Assistance Award (2016)

University of Toronto

- Awarded annually to the most outstanding Teaching Assistants in the Department of Earth Sciences.