

# 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



## 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.