

# Balachandar Kesavan

**web** [www.raj.k.me](http://www.raj.k.me)

**mail** [raj.k@berkeley.edu](mailto:raj.k@berkeley.edu)

**code** [github.com/raj-kesavan](https://github.com/raj-kesavan)

**Erdos number** 5

## Education

University of California, Berkeley · 2014—2018

B.S. Electrical Engineering and Computer Sciences

B.A. Pure Mathematics

## Experience

### Intern, Tetration Analytics

Palo Alto, California · Summer 2016

### Intern, The Climate Corporation

Seattle, Washington · Summer 2015

I wrote a Python library to geospatially and temporally align raster, vector, and point datasets for machine learning. I used rasterio, Cartopy, dask, and xray to provide flexibility of coordinate reference system and labeled, out-of-core n-dimensional data access.

—Authored a presentation · [raj.k.me/climate-paper](http://raj.k.me/climate-paper)

### Intern, The Scripps Research Institute

La Jolla, California · Summer 2013

Copy-number variant DNA mutation and disease analysis in Python.

—Co-authored a paper · [ncbi.nlm.nih.gov/pubmed/25521334](https://pubmed.ncbi.nlm.nih.gov/25521334)

### Intern, San Diego Supercomputer Center

La Jolla, California · Summer 2012

Molecular/quantum chemistry mechanics interfacing in Fortran.

—Authored a presentation · [raj.k.me/sdsc-paper](http://raj.k.me/sdsc-paper)

## Projects

**ryujin** · [github.com/raj-kesavan/ryujin](https://github.com/raj-kesavan/ryujin) · [raj.k.me/ryujin-paper](http://raj.k.me/ryujin-paper)

ryujin is a classical cryptography library for Clojure, including a probabilistic algorithm to crack substitution ciphers via frequency analysis and recursive Levenshtein-spellchecking.

**quetzal** · [github.com/raj-kesavan/quetzal](https://github.com/raj-kesavan/quetzal) · [raj.k.me/quetzal](http://raj.k.me/quetzal)

quetzal is an online, real-time, multiplayer adaptation of the classic Snake. It's written in Clojure and features AI enemies.

**busybeaver** · [github.com/raj-kesavan/busybeaver](https://github.com/raj-kesavan/busybeaver) · [raj.k.me/busybeaver](http://raj.k.me/busybeaver)

busybeaver is a finite-state Turing machine written in React.js.

### Languages

—Python, proficient

—Clojure, proficient

—JavaScript, intermediate

—Java, intermediate

—French, conversational

—Telugu, native

### Interests

—Cryptography

—Logic

—Literature

[raj.k.me/literature](http://raj.k.me/literature)

—Philosophy