# Information

#### Contact

+1 (561) 926-1163enricozb@gmail.com github.com/enricozb ezb.io

#### Interests

Type Systems Theorem Provers **Human-Computer Interfaces** Computer Science Education

# Software

### Infrastructure

Kubernetes, Helm AWS, GCP, Heroku WireGuard, NGINX Docker

#### **Stacks**

React, Svelte PostgreSQL, Redis TensorFlow, PyTorch, Keras

# Coursework

# Computer Science

Type Systems Complexity Theory Operating Systems Machine Learning Algorithms Decidability & Tractability Functional Programming Graphics

#### Mathematics

Information Theory Discrete Math Model Theory Abstract Algebra Bayesian Inference Game Theory Real Analysis

#### Interdisciplinary

Biomolecular Computation Biological Data Analysis

# LANGUAGES

#### Fluent

English Portuguêse

#### **Proficient**

Spanish

# ENRICO ZANDOMENI BORBA

# EDUCATION

# California Institute of Technology

(2019)

B.S. Computer Science

# Work Experience

## FOSSA Software Engineer

(Oct 2020 - Present)

Leading the development and direction of an upcoming AOSP Monorepo product. Running a tight customer feedback loop with two major Improved client-side scanning and UI of Monorepo by customers. 30x through schema changes, algorithmic improvements, and cache pre-warming.

# Google Software Engineer

(SEP 2019 - SEP 2020)

Worked on the Interactive Questions team. Improved the freshness of answers, created an automatic pipeline to initialize and monitor data, and built a cache system to dramatically speed up pipeline reruns.

### Van Valen Lab Research Student

(SEP 2018 - JUN 2019)

Used Machine Learning (CNNs & NNs) to perform segmentation and cell tracking on movies of biological cells. Greatly improved the cell tracking model accuracy on detecting divisions and created a (now patented) data curating tool to ease the manual correction of incorrect outputs.

#### Mitsubishi Engineering Intern in Japan (Summer 2018)

Worked on the systems division to create the infrastructure for sensor data collection and processing inside next generation vehicles. Constructed a model to detect drowsiness and impairment in drivers using biometric sensors and driving data.

#### Facebook Software Engineering Intern (Summer 2017)

Worked with the Search as a Service (SaaS) team. Wrote a scaled down version of the existing SaaS platform for teams looking to test out the service. This involved scripting (Bash/Python), data mining (MySQL, Hadoop, Hive), and building a web frontend (HHVM).

# Projects & Languages

Myth

SWIFT, PYTHON, JAVASCRIPT

A hierarchical time tracker that lets you analyze how you spend your time. Accessible as an iOS app, on a terminal,

and as a web-app.

OCAML

My (unfinished) attempt at the best programming language: writes like Python; runs like C; liberal like JavaScript; safe like OCaml.

#### Python-CRN

PYTHON, SYMPY

A Chemical Reaction Network simulator presented as a Domain Specific Language. Supports stochastic and deterministic networks.

### Crick

PYTHON, OPENCV, REQUESTS

HQTrivia Human assistant: Using OCR from a continuous screen capture, provides short, expressive, and context-aware Google queries.

#### XaTeLite

PYTHON, LATEX, BASH

Pronounced "satellite". A LATEX-over-HTTP workflow: Edit your .tex file over ssh and visit a website for the pdf.

# Expert Python 3+

Golang

#### Advanced

**TypeScript OCaml** 

Bash Swift

Lean C++

 $\mathbf{C}$ 

#### Basic

Haskell Rust

Elixir Java

Hack (HHVM)