Enrico Borba

Contact

Reach Me
enricozb@gmail.com
+1 (561) 926-1163

Find Me
ezb.io
github.com/enricozb

Coursework

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

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

Interdisciplinary
Biomolecular Computation
Biological Data Analysis

Software

Operating System
Linux (Ubuntu / Arch)
Mac OSX
Windows

Development & Workflow
mosh + tmux + kakoune
git, mercurial, perforce
Xcode, Atom, Sublime Text
sway

Design
Photoshop CS6
Sketch 3

Office Tools
Apple Pages & Keynote
GSuite   MS Office Suite

Languages

Fluent
English
Português

Proficient
Español

Basic
Japanese

Education

California Institute of Technology   (2015 - 2019)
  B.S. Computer Science

Work Experience

Google Software Engineer   (Sept 2019 - Present)
Working on the Interactive Questions team. Improved the freshness of answers, created an automatic pipeline to initialize and monitor data refreshes, and built a cache system to dramatically speed up pipeline reruns.

Van Valen Lab Research Student   (Sept 2018 - June 2019)
Used Machine Learning (CNNs & NNs) to perform segmentation & 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 quickly correct incorrect outputs.

Mitsubishi Engineering Intern in Japan   (Summer 2018)
Worked on the systems division to create the infrastructure for sensor data collection & 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. I 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).

Google Software Engineering Intern   (Summer 2016)
Wrote an RPC (remote procedure call) tracing tool for the Vanadium project in Golang. Set up a protocol, "HTTP over RPC", which would serve HTML pages which contained data on the RPCs. I also worked with Google Street View to enable car operators to mark road conditions (dirt, private, or public) with a joystick.

Projects & Programming Languages

Tyme
Track your moments effortlessly. A non-intrusive time tracker that lets you analyze your life.

Myth
My attempt at the best programming language: writes like Python; runs like C; liberal like Javascript; safe like OCaml.

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

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

XaTeLite ("satellite")
LaTeX over HTTP workflow. Edit the source file over SSH and visit a website for the pdf.

Expert
Python 3.7+ ●●●●○

Advanced
OCaml ●●●●○
C++11 ●●●○○
JavaScript ●●●●○
Processing ●●●●○

Proficient
Lean ●●●○○
Haskell ●●●○○
C ●●●○○

Basic
Swift ●●○○○
R ●●○○○
Elixir ●●○○○
Golang ●●○○○
Hack (HHVM) ●●○○○
Rust ●○○○○
MATLAB ●○○○○