ENRICO ZANDOMENI BORBA

INFORMATION

Contact
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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
Português

Proficient
Spanish

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 customers. Improved client-side scanning and UI of Monorepo by 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

Tyme — 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.

Myth — 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++
C

Basic
Haskell
Rust
Elixir
Java
Hack (HHVM)
R