

Henrique Salvadori Coelho

Great problem solving skills, detail-oriented, well-organized and willing to take on new challenges. Fluent in English and Portuguese.
Focused in high volume data processing and toolchain development

WORK EXPERIENCE

Lead Data Engineer (GroupBy Inc.)

Feb 2018 - Present. Toronto/ON

- Planning and implementing architectural changes to improve performance and stability, as well as lowering costs
- Deploying and monitoring Node.js (JavaScript and TypeScript) microservices with Kubernetes clusters
- Building stateless, stream-based, highly scalable data processing systems to handle thousands of events per second
- Developing and implementing systems with cloud technologies such as Google Dataflow (Apache Beam), Google Cloud PubSub, Google Cloud Storage, Google BigQuery, and Docker, as well as technologies such as Node.js, Java, Elasticsearch, and TypeScript
- Identifying and mitigating performance issues
- Developing applications using Test Driven Development, Continuous Integration, and Continuous Deployment

Software Developer (Self-employed)

Apr 2017 - Feb 2018. Toronto/ON

- Implemented a Node.js web portal based on the MVC (Model-View-Controller) pattern with Koa, load balanced with PM2, with PostgreSQL as database

ENGINEERING.com Project - Developer at Seneca College's Centre for Development of Open Technology (CDOT)

Sep 2016 - Apr 2017. Toronto/ON

- Created the Open-Source project Rutilus (<https://gmrrutilus.github.io/>), which records and analyzes user behaviour, tracking the activity of millions of readers and finding patterns in their usage for determining their preferences
- Deployed on Amazon Web Services using EC2 Instances with Docker

Z3 Project - Developer at Seneca College's Centre for Development of Open Technology (CDT)

May 2016 - Sep 2016. Toronto/ON

- Implemented a Node.js server with Express and PM2 as load balancer
- Designed and implemented parts of the CRUD API for the application
- Implemented a secure user management system with Passport.js
- Implemented server and client-side layout rendering with React.js

Private tutor

January 2015 - Jan 2017. Toronto/ON

- Teach and assist students with C, C++, JavaScript, Java, and PHP

Grower at Geremia Greenhouse

May 2012 - Dec 2012. Wallingford Center/CT/USA

- Managed approximately 5,000m² of ornamental plants greenhouses
- Conceived a method of irrigation to improve and reduce losses of crops
- Created a new, more efficient method for cutting nets for supporting plants

PERSONAL DETAILS

Location

Yonge and Lawrence, Toronto/ON

Phone

(647) 782-5460

Email

henriquesc@gmail.com

Personal website

<https://hcoelho.com>

Blog

<https://hcoelho.com/blog>

LinkedIn

<https://ca.linkedin.com/in/henriquesc>

GitHub

<https://github.com/hscasn>

LANGUAGES and SKILLS

Fluent in

- . C
- . JavaScript
- . Node.js
- . TypeScript
- . Asynchronous programming
- . Data structures and algorithms
- . Test Driven Development

Competent in

- . C++
- . CSS/HTML
- . Git
- . Java
- . Koa/Express.js
- . Kubernetes
- . MongoDB
- . MySQL
- . PHP
- . PostgreSQL
- . React.js
- . Redux/Flux
- . Shell Script
- . CRUD/REST HTTP APIs
- . Datawarehousing
- . Google Cloud Services
- . Parallel Programming
- . Portability and optimization

Some knowledge of

- . ASP.net
- . C#
- . Cobol
- . Elasticsearch

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Intern at Sakata Seed Sudamerica

Jan 2012 - Feb 2012. Bragança Paulista/SP/Brazil

- Developed a better, easier to use spreadsheet for analyzing experiments

EDUCATION

Computer Programming and Analysis - Seneca College

2015 - 2018. Toronto/ON. GPA: 4.0/4.0

Bachelor's in Agricultural Engineering - Centre-West State University

2008 - 2014. Guarapuava/PR/Brazil. Average grade: 8.2/10.0

COURSES

Google Cloud Platform Big Data and Machine Learning Fundamentals

2018. Coursera.org. Grade: 100 %

Big Data Modeling and Management Systems

2018. Coursera.org. Grade: 100 %

Introduction to Big Data

2018. Coursera.org. Grade: 99.4 %

Scalable Microservices with Kubernetes

2018. Udacity.com.

Advanced Linux: The Linux Kernel

2017. Lynda.com. Duration: 2.75 hours

Build a Modern Computer from First Principles: From Nand to Tetris Part II

2017. Coursera.org. Grade: 96.8%

Using Regular Expressions

2017. Lynda.com. Duration: 5.5 hours

Build a Modern Computer from First Principles: From Nand to Tetris

2016. Coursera.org. Grade: 100%

Web Application Development with JavaScript and MongoDB

2016. Coursera.org. Grade: 100%

Algorithmic Toolbox

2016. Coursera.org. Grade: 83.1 %

Machine Learning Foundations: A Case Study Approach

2016. Coursera.org. Grade: 95.5%

Algorithms, Part I

2016. Coursera.org. Not graded, offered by Princeton University

Capstone: Analyzing (Social) Network Data

2016. Coursera.org. Grade: 98.9%

Programming for the Internet of Things Capstone

2016. Coursera.org. Grade: 100.0%

- . Go
- . jQuery
- . Linux Kernel
- . OpenGL
- . Rust
- . RPG
- . Apache Beam
- . Amazon Web Services
- . Assembly (x86-64 and Aarch64)

OTHER SKILLS

Tools

JetBrains IDEs, Microsoft Office, UML, Visual Studio, Visual Studio Code, VIM

Operating Systems

MacOS/OSX, UNIX/Linux, Windows

TOP 3 BOOKS

. The Software Craftsman

Sandro Mancuso

. Continuous integration

Andrew Glover

. C Programming Language

Brian W. Kernighan, Dennis Ritchie

PERSONAL PROJECTS

Please visit my github* and my blog** for more details about things I did and learned.

* <https://github.com/hscasn>

** <http://hcoelho.com/blog>

Notable projects:

Rutilus

Node.js (JavaScript) + MongoDB

An open-source application that allows you to record and analyze user activity, as well as profiling users based on their behaviour and generate recommendations for content.

<https://gmutilus.github.io/>

Pet projects:

simpleOS (in development)

C and X86-64 Assembly

A very basic Operating System kernel built in C and x86-64 Assembly

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Interfacing with The Raspberry Pi

2016. Coursera.org. Grade: 100.0%

Up and Running with COBOL

2016. Lynda.com. Duration: 3.5 hours

Data structures: Measuring and Optimizing Performance

2015. Coursera.org. Grade: 97.7%

The Raspberry Pi Platform and Python for the Raspberry Pi

2015. Coursera.org. Grade: 98.8%

Interfacing with The Arduino

2015. Coursera.org. Grade: 100%

The Arduino Platform and C Programming

2015. Coursera.org. Grade: 100%

Introduction to the Internet of Things and Embedded Systems

2015. Coursera.org. Grade: 100%

Up and Running with Node.js

2015. Lynda.com. Duration: 1 hour

Up and Running with Git and GitHub

2015. Lynda.com. Duration: 1.3 hours

iOS App Development with Swift Essential Training

2015. Lynda.com. Duration: 6 hours

Swift Essential Training

2015. Lynda.com. Duration: 3.5 hours

iOS Game Development with Sprite Kit

2015. Lynda.com. Duration: 3.5 hours

qdLang (in development)

x86-64 Assembly and TypeScript

A very simple programming language that compiles to x86-64 assembly, with a compiler built in TypeScript

HONOURS

Promoted from software developer to lead data engineer

GroupBy Inc.

July 2018

Certificate of Recognition

Seneca College

April 2017

Certificate of recognition from Seneca Applied Research & Innovation for contributing as a Research Assistant on applied research projects.

President's Honour List

Seneca College

Winter 2015, Fall 2015, Summer 2015, Winter 2016, Summer 2017, Fall 2017

Achieved a GPA of 4.0.

Promoted from assistant to grower

Geremia Greenhouse

August 2012

OTHER INTERESTS

Cooking, music, virtual reality games, 3D printers, tea, puzzles, philosophy, psychology, movies, playing guitar and bass.