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

Software Developer (GroupBy Inc.)

Feb 2018 - Present. Toronto/ON

- Helped planning and implementing architectural changes that improved performance and stability, as well as lowered costs
- Deploying and monitored 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, Google Cloud PubSub, Kubernetes, Google Cloud Storage, Google BigQuery, and Docker, as well as technologies such as Node.js, Java, ElasticSearch, and TypeScript
- Identifying and mitigating performance issues

Software Developer (Self-employed)

Apr 2017 - Present. 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
- Developing a portal aiding the workflow for the real estate industry

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://gmrutilus.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 5,000m^2 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

Competent in

- . C++
- . CSS/HTML
- . Git
- . Java
- . Koa/Express.js
- . 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
- . Go
- . jQuery
- . Linux Kernel
- . OpenGL

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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%

. Rust . RPG
. 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

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://gmrutilus.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

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

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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

HONOURS

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.