

# Henrique Salvadori Coelho

35 Fountainhead Rd. M3J 2V7 – Toronto, ON

(647) 782-5460, [henriquesc@gmail.com](mailto:henriquesc@gmail.com)

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

## EXPERIENCE

### - Software Developer (GroupBy Inc.)

Feb 2018 - Present. Toronto/ON

- Working with a test driven, agile environment
- Building stateless, stream-based, highly scalable data processing systems to handle thousands of events per second
- Working 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
- Deploying and monitoring microservices in a Kubernetes cluster
- Identifying and mitigating performance issues

### - Software Developer (Self-employed)

Apr 2017 - Dec 2017. 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://gmutilus.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 Rutilus on Amazon Web Services using EC2 Instances with Docker

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

May 2016 - Sep 2016. Toronto/ON

- . Implemented a Node.js server with Express and load balance with PM2
- . 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

### - 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<sup>2</sup> 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

### - 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

Personal website

<http://hcoelho.com>

Blog

<http://hcoelho.com/blog>

LinkedIn

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

GitHub

<https://github.com/hscasn>

## LANGUAGES and SKILLS

Competent in

C, C++, Shell Script, JavaScript, Node.js, TypeScript, React, CSS, HTML, Koa, Express.js, Data Structures and Algorithms, Software Portability and Optimization, HTTP APIs with REST and CRUD, Asynchronous and Parallel programming

Some knowledge of

Assembly (x86-64 and Aarch64), Amazon Web Services, Google Cloud Services, Go, Linux Kernel, C#, ASP.NET, jQuery, Python, Cobol, CL, RPG, Rust, Java, SASS, Redux, OpenGL, Datawarehousing

## OTHER SKILLS

Databases

MongoDB, MySQL, PostgreSQL

Tools

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

Operating Systems

MacOS/OSX, UNIX/Linux, Windows

## PERSONAL PROJECTS

Please visit my github\* and my personal blog\*\* for more details about everything 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

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## COURSES

- **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%
- **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

user activity, as well as profiling users based on their behaviour and generate content recommendations. <https://gmrutilus.github.io/>

### 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

## 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

Achieved a GPA of 4.0.

### Promoted from assistant to grower

Geremia Greenhouse

August 2012

## OTHER INTERESTS

Cooking, music, puzzles, playing guitar and bass.