



Reuben Morais

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SKILLS

- Extensive knowledge of systems programming with C and C++.
- Experience working on a very large codebases with distributed teams.
- Experience with TensorFlow: designing, training and deploying deep neural networks.
- Extensive experience with Python & JavaScript, including FFI between these languages and native code.
- Extensive experience with Git, Bash, Unix tools, Continuous Integration.

WORK EXPERIENCE

Mozilla July 2019 — Present

Senior Research Engineer

Implemented support for multi-language training and deploying of ASR models via direct UTF-8 output targeting, enabling training of efficient DeepSpeech models for languages with large number of characters such as Mandarin Chinese in low power devices.

Upwork Global Inc. Oct 2016 — June 2019

Machine Learning Research Engineer - Contractor

Investigated, implemented and tested alternative architectures for Mozilla DeepSpeech - a deep learning based ASR system, achieving low latency without losing accuracy. Designed and implemented C++ APIs for deploying Deep Neural Networks using TensorFlow, with streaming support. Integrated CTC decoding with language model scoring, resulting in cutting the error rate for our best performing speech recognition models in half.

Exalt Consulting, Inc. Aug 2013 — Sep 2016

Software Engineer - Contractor

Implemented and maintained web APIs on the Firefox OS project. Worked on the C++ IPC and security infrastructure of the Gecko browser engine. Ported JavaScript APIs to Android.

Mozilla Corporation Jan 2013 — Jul 2013

Intern - Software Engineering

Implemented and maintained Web APIs for Firefox OS. I submitted over 200 patches and reviewed 40 patches during the internship, mostly in C++ and JavaScript.

Eteq Tecnologia da Informação Jun 2011 — Mar 2012

Intern - Software Engineering

Worked on a medical triaging system built with Java EE. During the internship I worked with JBoss Seam, Hibernate, JNI, and Web technologies in the front-end.

Mozilla 2010 — 2016

Volunteer Contributor

Lead the Brazilian Portuguese translation team for the Firefox Support website from 2011 to 2012. Helped organize community events in South America. Lead the Brazilian Portuguese translation team for Firefox and Firefox for Android from 2015 to 2016.

EDUCATION	B.Sc. in Information Systems Universidade Federal de Minas Gerais	2015 — 2018
	Industrial Informatics Technician Degree Centro Federal de Educação Tecnológica de Minas Gerais	2008 — 2011
	Three-year vocational-technical degree. Studied C, C++ and Java programming, electronics, computer networks and robotics.	
INTERESTS	Reverse engineering, game modding, compilers and programming languages. Mountain biking, camping.	