Sebastián Arrazola

3329 Katherine Street, Dearborn, MI 48124 • 240.505.3886 • sebastianarrazola@gmail.com

Summary of Qualifications

Information Technology

- Experience with Git to facilitate code management and collaboration efforts
- Familiarity with multiple terminal emulators including Git Bash, Cygwin, and Windows Terminal
- Proficient in building robust responsive web applications using a variety of technologies including HTML, CSS, JavaScript, jQuery, Bootstrap, Node.js
- Knowledge of many web libraries and frameworks including React.js and Express.js
- Experience designing modular applications based on established best practices/design paradigms including MVC (Model View Controller) through the use of development stacks such as MERN (MongoDB, Express, React, Node) and LAMP (Linux, Apache, MySQL, Python)
- Familiar with SQL and NoSQL databases including Oracle, MySQL, MongoDB and their respective ORM's (Object Relational Mappers)
- Knowledge of package management via NPM to implement required application features within the Node.js ecosystem
- Experience with Agile software development model
- Excellent working knowledge of embedded systems implementation utilizing low-level technologies including Assembly, C/C++
- Knowledge of object-oriented programming languages and design philosophy, particularly as it relates to the Java Enterprise (J2EE) ecosystem
- Exposure to several Linux flavors (RedHat, Ubuntu, CentOS, etc.)
- Exceptional scripting and automation abilities with shell/bash

Experience

HEV On-Board Diagnostics (OBD-II) Calibration Engineer Sept. 2017—Present

Ford Motor Company *Dearborn, MI*

- Lead and manage an OBD team of seven calibration engineers, report to internal stakeholders, and monitor the status of task completion under tight "go-fast" deadlines.
- Responsible for OBD fault coordination, documentation, and validation of Powertrain Control Module software.
- Coordinate new OBD feature specifications, algorithm development, prototype validation, and software release planning.
- Identify and report functional deficiencies, track issues, and propose resolutions to software strategists and management.
- Collect faulted OBD emissions data in dyno lab to assess compliance with Global standards and regulations, including the California Air Resources Board (CARB) OBD-II regulations.

HEV Calibration Release Engineer **S**ept. 2016—2017

Ford Motor Company *Dearborn, MI*

- Evaluated and assessed vehicle attributes (performance, fuel economy, NVH) on vehicles and in engine dynamometer test cells.
- Modified vehicle and powertrain control calibrations to improve fuel economy, performance, emissions, and diagnostics.
- Designed and validated control algorithms to meet functional, regulatory, and safety requirements.
- Utilized LabVIEW for vehicle battery charging and on-cycle energy consumption data acquisition.
- Performed MATLAB data analysis to produce combined fuel economy measurements to meet best-in-class targets.

Education & Certifications

Michigan State University College of Engineering *Nov. 2020*

Professional Certificate, Full-Stack Web Development

- Course highlights: Learned to work with Git, Git Bash, HTML, CSS, JavaScript, jQuery, Bootstrap, Node.js, Express.js, Express-session, Express-handlebars, React.js, Database Theory, MySQL, Sequelize, NoSQL, MongoDB & working in an agile-based team environments.

Microprocessors & Embedded Systems *Fall 2017*

UM-Dearborn College of Engineering & Computer Science

- Course focus on modern digital computer logic; Numbers and coding systems; Boolean algebra with applications to logic systems; combinational and sequential logic design; simple machine language programming; microprocessors-programming, input/output, interrupts, and system design; Assembly and C/C++

B.S. in Mechanical Engineering *May 2016*

University of Maryland A. James Clark School of Engineering

- Course highlights: Computer-Aided Design, Heat Transfer, Electronics & Instrumentation, Vibrations & Controls, Automotive Design Theory, Vehicle Dynamics, and Fundamentals of Internal Combustion Engines

Experience

github.com/SeaBa55