

JESÚS ALFREDO VELÁZQUEZ

Electrical Engineer

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EXPERIENCE

Calibration Methods Engineer - Electrified Powertrain

Ford Motor Company

2019 - Ongoing

Mexico City, Mexico

- Developed and integrated internal web applications with VueJS, ReactJS and Bootstrap.
- Lead developer for model based calibration optimization applications for powersplit and MHT vehicles using Matlab.
- Used ElectronJS, Node, Vue, Vuex and Router to develop desktop applications to interact with internal APIs.
- Consumer Driven 6σ Green Belt Verified.

Powertrain Engineer

Ford Motor Company

2016 - 2019

Mexico City, Mexico

- Single point of contact to troubleshoot powertrain related issues during the build of the 2019 Transit Connect prototype vehicles. Main goal was to reduce vehicle downtime (PTIM Award for this).
- Engine calibration testing and validation on I4 GTDI engines.
- Vehicle simulations, testing and benchmarking.

EDUCATION

MSc. in Electrical Engineering

National Autonomous University of Mexico (UNAM)

2014 - 2016

México

Control Systems Engineering

Thesis: State of charge estimation on Lithium Ion batteries and double electric layer capacitors using electrochemical discretized models.

BSc. in Electrical Engineering

National Autonomous University of Mexico (UNAM)

2009 - 2013

México

Control Systems and Robotics

AWARDS



PTIM Award

Ford Motor Company - 2017



Gabino Barreda Medal (Highest GPA)

UNAM - 2014

PUBLICATIONS



Conference Proceedings

- Spencer, Winston et al. (2019). "Energy Management Strategy Calibration Table Optimization". In: *Ford Motor Company's 5th Global Control Conference*. Dearborn, Michigan.
- Velázquez, Jesús, Álvarez-Icaza Luis, and Romero Aldo (2016). "State of charge estimation on double electric layer capacitors using electrochemical discretized models." In: *National Congress on Automatic Control, (CNCA)*. Querétaro, Mexico.

SKILLS

Work independently, but collaboratively

Proactive

Fast learner

Curious

Analysis

Persistence

Adaptability

TECHNICAL SKILLS

Matlab/Simulink

Python

Git

Javascript

HTML

VueJS

ReactJS

Bootstrap

Tailwind CSS

Python

ATI Vision

LaTeX

LANGUAGES

Spanish

English

German

