

Languages

Italian (Native or Bilingual)

English (Full Professional)

Publications

Modeling and control of a brake system for an extended range electric vehicle equipped with axle motors

A near-optimal rule-based energy management strategy for medium duty hybrid truck

Riccardo Biasini

Director of Electrical and Software Engineering at The Boring Company

Las Vegas, Nevada, United States

Experience

The Boring Company

Director - Operations, Electrical and Software Engineering (Vegas Loop)

March 2020 - Present (4 years 7 months)

Las Vegas, Nevada, United States

- Software that manages and controls the Vegas Loop: automated traffic management, diagnostic and controls
- Electrical architecture of the Vegas Loop: design systems, sourcing components and manufacturing electrical assemblies
- Live operations, maintenance and staffing of the Vegas Loop

comma.ai

2 years 8 months

Chief Systems Architect

May 2019 - February 2020 (10 months)

San Diego, California, United States

- Led the openpilot team and managed public releases
- Designed and implemented the openpilot safety logic, following industry standards: ISO-26262, Misra c2012, regression tests
- Helped comma go from no revenues to profitable by making openpilot compatible with more than 60 car models over the course of 3 years

Chief Executive Officer

September 2018 - May 2019 (9 months)

San Diego, California, United States

- Managed a team of 11-13 while supervising engineering, products, accounting and headcount
- Strategically relocated the company from San Francisco to San Diego

VP of Quality

July 2017 - September 2018 (1 year 3 months)

San Francisco, California, United States

- Responsible for the quality of the public software releases and the hardware sold

comma.ai

Controls Engineer

April 2016 - November 2016 (8 months)

San Francisco, California, United States

- Contributor to openpilot.comma.ai, an open source Driver Assistance System used by thousands of people around the world
- Developed in-house Automated Lane Centering (ALC), Adaptive Cruise Controls (ACC) and camera real time calibration algorithm
- Reverse-engineered DBC files and APIs to control car actuators and alerts

Tesla

5 years 4 months

Sr. Systems Engineer

January 2015 - April 2016 (1 year 4 months)

Palo Alto, California, United States

- Led architecture of controls, safety, and functional behavior of Tesla's propulsion system, from battery power to torque delivered at the wheels.
- Managed a team of system engineers

Sr. Controls Engineer

March 2014 - January 2015 (11 months)

Palo Alto, California, United States

- Brought the Traffic Aware Cruise Control (TACC) from idea to public release
- Designed and implemented the control logic, from sensor output to longitudinal dynamic control
- Coordinated development across various Tesla teams and interfaced with several suppliers as technical reference

Powertrain Modeling Engineer

January 2011 - March 2014 (3 years 3 months)

Palo Alto, California, United States

- Developed Tesla's in-house powertrain and vehicle model
- Worked with the model to produce repeatable and dependable results for various stakeholders within the organization
- Develop trade-off studies, specifications, and control algorithm design for thermal, motor, battery, power electronics and vehicle systems

The Ohio State University, Center for Automotive Research

Visiting Scholar

February 2010 - December 2010 (11 months)

Columbus, Ohio, United States

- Developed a Matlab Simulink model of a Hybrid Electric Vehicle with axle motors
- Applied Dynamic Programming to optimize powertrain efficiency

Dallara Automobili

Intern

July 2009 - September 2009 (3 months)

Varano de' Melegari, Emilia-Romagna, Italy

Proposed a fatigue analysis procedure for racing vehicle components

Fermi National Accelerator Laboratory

Visiting Scholar

July 2008 - September 2008 (3 months)

Batavia, Illinois, United States

Mechanical design, structural and thermal analyses for the resonant structures of the particle accelerator

Education

Università di Pisa

Master's degree, Automotive engineering · (2008 - 2010)

Università di Pisa

Bachelor's degree, Aerospace engineering · (2004 - 2008)

Scuola Superiore Sant'Anna

Diploma of excellence, Engineering · (2004 - 2010)