Matteo Piunti

Automotive Engineer

Ph. D. student in Automotive for Intelligent Mobility at the Department of Industrial Engineering (DIN) of the University of Bologna. Graduated in Vehicle engineering, Master's degree in Advanced Automotive Engineering. Experience with experimental activities, engine calibration on dyno test benches and data analysis on track.

Contact Information
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Date of birth
26 Oct, 1998
Nationality
Italian
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Experience

Bologna
Oct 2021 - Oct 2022

Formula SAE member

Unibo Motorsport

Fuel tank design, Air intake study and design. Design from zero up to the production of the fuel tank to comply with the restraints of the newly developed carbon tub, it has been realized fully in aluminum. Study of a ram air intake to reduce the pressure drop caused by the filter due to the small area available of the previous configuration.

Casalmaggiore
Oct 2022 - Oct 2023

Internship - Testing Division

AutotecnicaMotori

- Master's thesis: Development and Testing of a Software for Engine data Analysis and fault detection, for track support during Formula 4 Championship. The software aims to simplify the data analysis during track events with up to 50 cars, filtering the data to allow the final user to have a clearer view of the possible problems, to do that interact directly with the Magneti Marelli software Wintax used on the F4 cars that are all equipped with the same brand ECU. The software performs data analysis and detect any possible issue related to the engine unit, during the final process of development it has been tested at the circuit Ricardo Tormo, and during the Italian F4 championship.
- Experimental activities and calibration at engine dyno test benches
- Track support and data analysis during multiple F4 championships around Europe

Nov 2023 - Present

Ph.D. in AUTOMOTIVE FOR INTELLIGENT MOBILITY

ALMA MATER STUDIORUM – UNIVERSITÀ DI BOLOGNA and FERRARI S.P.A. – GESTIONE SPORTIVA

Development of tools and models for hybrid power unit simulation

Education

Fermo
2012 - 2017

Diploma di Scuola Superiore in Trasporti e Logistica

Istituto Tecnico Industriale I.T.T. "G. E M. MONTANI" Fermo

Modena
Sep 2017 - Oct 2020

Laurea in Ingegneria del Veicolo

Università degli Studi di MODENA e REGGIO EMILIA - MODENA

102/110

Modena - Bologna
Sep 2020 - Apr 2023

Master Degree in Advanced Automotive Engineering

Motorvehicle University of Emilia-Romagna – MUNER

With specialization in the Curriculum of Advanced Powertrain that provides the core competences related to high performance vehicle powertrain systems.
110/110 cum Laude

AUTOMOTIVE FOR INTELLIGENT MOBILITY
Nov 2023 - Present

Ph.D.

ALMA MATER STUDIORUM – UNIVERSITÀ DI BOLOGNA and FERRARI S.P.A. – GESTIONE SPORTIVA

Skills

Problem-Solving · Teamwork · Knowledge of MATLAB and SIMULINK · Knowledge of SOLIDWORKS · Knowledge of Siemens NX · Knowledge of ANSYS · Knowledge of WINTAX - Magneti Marelli · Knowledge of SYSMA - Mgneti Marelli · Minor knowledge of Bosch - Windarab · On track data analysis · Knowledge of Matlab App Designer

Languages

English
Advanced. B2

Italian
Native

Projects

Software for Data analysis on track

-Software developed using Matlab/App Designer

-Able to interact directly with Wintax software

-Filter and Analyze data to find major problems of the engines on track

-Developed for Abarth 414-F4 engine used in F4 series

Mechanical Vibrations

-Suspension optimization of a vehicle travelling over traffic bumps

-Development of a simplified model of a V8 internal combustion engine and analysis of the vibration forces originating from the engine and transmitted from the mounts to the chassis
-Investigation of the effects of the axial speed on the dynamics of a belt, for Power belt transmission

Advanced Combustion Systems - "OPTIMIZATION OF A HIGH BMEP TURBOCHARGED GDI INTERNAL COMBUSTION SERIES ENGINE"

Applied Automatic Controls - "LAUNCH CONTROL 4WD"

Chassis and Body Design and Manufacturing - "AXLE BRACKETS OPTIMIZATION"

Electric Drives - "DC/DC DRIVE SYSTEM"

Electric Drivelines - "HYBRID SYSTEM DESIGN FOR A LAMBORGHINI HURACAN"

Manufacturing and assembly technologies-science and technology of metallic and composite materials -"ALUMINUM ALLLOYS: ADDITIVE MANUFACTURING OR CASTING?"