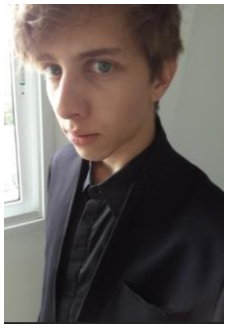
CARLOS EDUARDO AMÉRICO



Mechanical Engineer **Phone number:** (42) 99845-0239

Single, brazilian, 22 years old. linkedin.com/in/**cea**

Adress: São Januário, 22, AP 105 – Curitiba – PR.

E-mail: ceamerico123@hotmail.com

EDUCATION

- **Master's degree – *strictu sensu* - Mechanical Engineering - Research line CFD:** Thermal Engineering and Transport Phenomena, Federal University of Paraná, 2019/2020.
- **Graduation - Mechanical Engineering,** Positivo University, 2014/2018.

WORK EXPERIENCE

- **03/2017 – 12/2018 – National Siderurgical Company – CSN-PR. – Maintenance Engineering Department.**

  Position: Intern college level. Worked at maintenance engineering department and predictive department. Developed projects and activities ensuring reliability and availability for almost 250 equipment's using predictive techniques such as lubricant oil analysis, thermography analysis and vibration analysis. Also Responsible for planning and execute oil analysis program, contract and finances management, contact with providers and laboratories, create and arrange service orders for preventive maintenance. Responsible for data analysis, create tendencies and KPI's for maintenance strategy from plant previous data and results.

  Promoted, arranged and executed projects objectifying avoid particle and water in oil contamination, cross-contamination, stabilize or grow equipment's life such as pumps, gearboxes, hydraulic units, generators, compressors, proportional and directional moog valves. Also provided systems for oil monitoring condition via PLC using water in oil sensors and filtration media saturation, developed several filtration systems for individual equipment's units with unique features.

  Made structural, hydraulic and thermal sizing, realized heat exchange and oven thermal efficiency analysis, resulting in a propose for thermal upgrade and oven balance, if those changes have been implemented, it would increase production in 59% and cause abruptly reduction of natural gas consumption.

- **03/2016 – 12/2016 – Positivo University**.

  Position: Differential and Integral Calculus Monitor. Responsible for calculus tutoring, extra class activities, calculus proofreading, resolution of exercises on the blackboard and sections for doubts solution.

LANGUAGES

- **Portuguese – Native Language.**
- **English – Advanced**.
  New Winters School
  CELIN - Federal University of Paraná.
- **Spanish – Intermediate**.
  New Winters School.
- **Russian – Beginner**.
  CELIN - Federal University of Paraná.

CURRENT AND FINISHED PROJECTS

- 05/2014 – 03/2015 – Undergraduate research: Characterization and sample of different thermally treated steels.
- 05/2015 – 03/2016 – Undergraduate research: Study of aerodynamics of rocket model for E class engine using wind tunnel.
- 05/2016 – 03/2017 - Undergraduate research: Development of rocket model engine for propellant analysis.
- 02/2018 – 10/2018 – Monograph: Development of a ballistic test rocket engine.
- 03/2017 – Today – Research and Technical development: Member of **CFD** group (***C****omputational* ***F****luid* ***D****ynamics*), Propulsion and Aerodynamics of Rockets from Federal University of Paraná. This group improve and apply computational techniques in **CFD** (method of characteristics, multigrid methods, finite volume methods and finite difference methods), develops its own codes and computational models using Fortran and Python as programming languages. In addition, I am one of the members responsible for structural, thermal and aerodynamic sizing of experimental rockets, mechanical drawing design, structural efforts, flying trajectory, data and performance analysis before and after flying.

SOFTWARES

- **StarCCM+** - Advanced
- **SolidWorks** – Advanced
- **AutoCad** – Intermediate
- **ProEngineer** – Intermediate
- **Ansys CFX** – Intermediate
- **Fortran** - Advanced
- **Python** - Intermediate
- **MatLab** - Intermediate
- **C++** - Beginner
- **Ansys Structual - FEA** – Intermediate
- **Pacote Office** - Advanced
- **SIGMA** - Advanced
- **S.A.P** – Intermediate
- **FluidSim** – Intermediate