

Alexander Martinchuk

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EDUCATION

Master of Science in Motorsports Engineering • Distinction June 2020
Oxford Brookes University, Oxford, UK

Relevant Coursework: Advanced Vehicle Aerodynamics, Advanced Vehicle Dynamics, Laptime Simulation and Race Engineering, Data Acquisition and Computational Modeling, Crash Impact Modeling, Engineering Business Management, MSc Dissertation

Bachelor of Science in Mechanical Engineering • GPA: 3.62/4.00 May 2018
California State University Northridge, Los Angeles, CA

Dean's List: Fall 2015, Spring 2016, Spring 2017

Relevant Coursework: Senior Design: FSAE, Geometric Dimensioning and Tolerancing, Internal Combustion Engine Theory, Automotive Engineering, Machine Design I & II, System Dynamics, Mechatronics, Thermodynamics, Fluid Mechanics, Computer Aided Analysis and Design

RELEVANT EXPERIENCE

Systems Engineer, Oxford Brookes Racing: FS team Sep 2018 - Sep 2019
Oxford Brookes University, Oxford, UK

- Configured CAN bus network between Emtron ECU and Bosch DDU7 display datalogger to ensure sensor data was being transmitted properly.
- Downloaded, and organized data from the vehicle during testing. Improving documentation and accessibility for future analysis.
- Conducted vehicle system checks and monitored vehicle performance during track testing days to ensure vehicle reliability was not compromised.
- Took over the roles of engine calibration and powertrain lead.
- Assisted in the manufacturing and assembly of the vehicle through carbon fiber composite work, fixture design, and creating part drawings.

Engine Calibration and Data Engineer, Matador Motorsports: FSAE team June 2017 - June 2018
California State University Northridge, Los Angeles, CA

- Integrated Athena GET HPUH ECU with a 2017 Honda CRF450R engine. Then calibrated on a mustang chassis dynamometer. Placing 3rd in fuel efficiency at the 2018 Lincoln, Nebraska FSAE competition.
 - Configured Athena GET M40 datalogger, and calibrated vehicle sensors such as TPS, air temperature, brake pressure, linear potentiometers, and wheel speed.
 - Created engine CAD model from 3D scan data using Fusion 360. Imported it into the vehicle assembly in SolidWorks. Providing the team with an accurate representation and placement of the engine.
 - Designed engine mount assembly and created part drawings to assist in manufacturing.
 - Troubleshooted and repaired electrical and mechanical issues of the vehicle.
 - Validated design decisions from data gathered from chassis dynamometer and track testing, aiding the team in making design finals for the first time in team history.
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TECHNICAL SKILLS

Programming: Matlab, Simulink, VBA

Software: SolidWorks, Excel, Motec i2, WinDarab, Emtune, Maya, PowerPoint, LabView, Fusion 360

Practical: Soldering, Crimping, Composite layup

CERTIFICATION

SolidWorks Associate – Mechanical Design (C-TYFB9HFLRR)

INTERESTS

Basketball, Travelling, Piano, Gearhead