

# Jared Cox

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## **BACHELOR OF ENGINEERING - MECHANICAL | MCMASTER UNIVERSITY**

*SEPT 2015 – APR 2020 | HAMILTON, ONTARIO, CANADA*

- Completing a four-year Mechanical Engineering program with 16 months of internship experience
- Currently achieving a 3.5 cumulative GPA

## **Experience**

### **MECHANICAL CAPTAIN | MAC FORMULA ELECTRIC - FSAE**

*SEPT 2017 – PRESENT | HAMILTON, ONTARIO, CANADA*

- Provided guidance and instructions to a team of over 90 members; led meetings, managed sponsorships and oversaw multiple projects simultaneously while meeting competition deadlines
- Designed packaging and integration of High Voltage Battery Pack; including composite enclosure and cooling
- Created detailed drawings of complete vehicle assembly and managed team's CAD repository
- Led the aerodynamics team; designed, simulated, manufactured and tested a fully carbon fiber aero package
- Prepared CAD Model, manufactured and tested the wiring harnesses for the vehicle
- Modelled and simulated the cooling loops (motors and inverters) using CFD to ensure sufficient flow and heat transfer
- Optimized carbon fiber manufacturing using Altair HyperWorks; HyperMesh, OptiStruct and HyperView
- Aided in FEA analysis and manufacturing of carbon-fiber monocoque using VARTM manufacturing process
- Developed the team website using React.js (<https://macformularacing.com>)

### **SOFTWARE DEVELOPER IN TEST | BAYER INC, ENTERPRISE SOLUTIONS**

*MAY 2018 – AUG 2019 | MISSISSAUGA, ONTARIO, CANADA*

- Led the QA Automation team, developing automated tests/benchmarks to ensure product quality using C#, .NET Framework, SQL and Ranorex Studio
- Managed security risk mitigation for client servers, STIG Mitigation
- Set up automated deployments, upgrades and tests using Jenkins' pipelines
- Conducted training sessions for global software team, presenting testing software and development procedures

### **PRODUCTION TEAM STUDENT | TOYOTA MANUFACTURING MOTOR CANADA**

*MAY 2016 – AUG 2016 | CAMBRIDGE, ONTARIO, CANADA*

- Thrived in a fast-paced manufacturing environment, applying various components to production vehicles while ensuring product quality and following safety procedures
- Gained practical experience in production environment using a variety of industrial machinery

## **Skills**

- Proficient using SolidWorks - Certified SolidWorks Associate (CSWA); experienced with drafting and GD&T
- Proficient using Python, JavaScript, C#, SQL, Linux OS
- Proficient with Version Control Software; GitHub, Mercurial, GrabCAD
- Familiar with Altair HyperWorks, ANSYS Fluent, MATLAB, Altium Designer, AutoDesk Inventor, NX Nastran
- Excellent teamwork, organization and time management

## **Interests**

- Skiing, skateboarding, hiking, playing piano