Xinchen (Jason) Zhou

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EDUCATION

B.Eng., Mechanical Engineering Internship Program **Sept. 2015 – Apr. 2021 (expected)**

McGill University, Montreal, Canada

- CGPA: 3.75/4.00; Major GPA: 3.85/4.00
- Coursework: Heat Transfer, Fluid Mechanics, Mechanics 1/2/3, Mechanics of Composite Materials, Mechanics of Deformable Solids, Engineering Thermodynamics, Structure of Materials, Design Graphics, Design 1/2/3, Principle of Manufacturing, Numerical Methods, Value Engineering
- Member of McGill Institute for Aerospace Engineering
- Capstone Design Project Member of McGill Shock Wave Physics Group

RESEARCH AND ACADEMIC PROJECTS

2D Airfoil Mesh Grid Testing Project **Jun. 2020 – Sept. 2020**

- Generated structured C-grid meshes and converted exported **Gmsh** Plot3d structured files to executable format for aerodynamic shape optimization codes (SYN103) with **MATLAB**

Refrigerator Compressor Noise Reduction Proposal Project **Jan. 2020 – Apr. 2020**

- Performed a detailed cost analysis and feasibility study based on bill of materials and market price
- Modified compressor CAD files on **Simcenter 3D** for subsequent acoustic analysis and carried out engineering thermal analysis using **Siemens NX**, receiving the Best Presentation Winner Final Report 2020 Award

Numerical Methods MATLAB Course Project **Sept. 2019 – Dec. 2019**

- Solved the transonic small disturbance equation over a circular airfoil at various Mach numbers using the Murman-Cole method, created **MATLAB** script to for numerical solutions based on finite-difference approximations and iteration; visualized with a focus on shock formation on the airfoil

PROFESSIONAL EXPERIENCE

Process Engineer Intern **May. 2019 – Aug. 2019**

TTM Technologies, Toronto, Canada

- Conducted testing to calibrate aperture of a UV/CO_2 laser drilling machine, simultaneously improving drilled hole wall quality, and reducing cycle time by 5% to 15%
- Generated 20+ laser drill recipes for new work orders with various dielectric materials
- Reviewed 3D cross sections for 160+ work orders and developed a flow chart to improve work efficacy

Reliability Engineer Intern **Jan. 2018 – Apr. 2018**

IKO Industries Ltd, Hawkesbury, Canada

- Calibrated and drafted 10+ machine elements drawings from production line equipment in **AutoCAD**
- Implemented 60% plant asset CAD drawings onto the **Document Navigation Accelerator** (DNA), an internal app designed for plant operators, to easily access details and specifications of the equipment

AWARDS

- Faculty of Engineering Scholarship and Dean's Honour List for Top 10% Students (2020)
- John Howard Ambrose Scholarship (2017)
- Hugh Brock Scholarship and Complementary Award (2015)

ADDITIONALN INFORMATION

- **Programming Languages:** MATLAB, VBA, C, Fortran
- **Software:** AutoCAD, SolidWorks, Simcenter 3D, NX Nastran, Microsoft Office Suite, Gmsh
- **Finite Element Analysis:** ANSYS (Static Structural Analysis), Abaqus
- Citizenship of Canada