Jordan Leung

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EDUCATION

University of Toronto, Toronto ON (2017 - 2019)
M.A.Sc. Aerospace Engineering, GPA 4.0/4.0
Research Area: Aircraft Flight Simulation and Modelling

Queen's University, Kingston ON (2013 - 2017)
B.Sc. Engineering Physics, GPA 4.1/4.3
Sub-option: Mechanical Engineering

RESEARCH EXPERIENCE

Graduate Research Assistant (Sept. 2017 - May 2019)
Vehicle Simulation Laboratory, Professor P. R. Grant
University of Toronto Institute for Aerospace Studies, Toronto ON

- Researching methods for developing representative post-stall models of transport aircraft using certification flight test data for use in upset recovery simulation

Undergraduate Research Assistant (Sept. 2016 - Apr. 2017)
Rival Lab, Professor D. E. Rival
Queen's University Department of Mechanical & Materials Engineering, Kingston ON

- Conducted research in the field of experimental fluid dynamics aiming to simulate the aerodynamic effects of vertical gusts in flight by moving a test model through water
- Performed Computational Fluid Dynamics (CFD) simulations to compare the flow development of a canonical gust to different dynamically scaled model motions
- Familiarized myself with unsteady fluid dynamic theory such as Theodorsen's theory, indicial response theory, and unsteady wake development

Undergraduate Research Assistant (May 2016 - Aug. 2016)
Professor D. E. Rival
Queen's University Department of Mechanical & Materials Engineering, Kingston ON

- Conducted research in the field of experimental fluid dynamics aiming to characterize the aerodynamics of manoeuvring delta wings under the effects of gust
- Created MATLAB models to simulate the dynamics of a test manoeuvre, and interfaced pressure, force, and motion sensors using LabVIEW

PROFESSIONAL AND EXTRACURRICULAR EXPERIENCE

Team Captain, Queen's University SAE Aero Design Team (2013 - 2017)

- Lead a team of over 40 engineering students to design and construct two RC planes to compete in the annual SAE Aero Design competition amongst universities across Canada, the United States, and several other countries throughout the world
- Designed and modelled aspects of the aircraft in XFOIL, XFLR5, MATLAB, and SolidWorks
- Responsible for overseeing all duties related to technical design, project management, financial management, administration, sponsorship, and recruitment
- Refined time management skills by devoting a significant amount of time to design team projects during the school year, while also maintaining a high academic standing

- Previous positions: Stability & Tail Design Lead, Aerodynamics Team Member

UP Express Summer Student (May 2015 - Sept. 2015)
Metrolinx, Toronto ON

- Interacted with guests on the UP Express platform, responding to inquiries, improving guest satisfaction and acting as the face and voice of the company to the public
- Performed an analysis of the ridership frequency and diversity of UP Express, and developed a methodology to manually record ridership data

TEACHING EXPERIENCE

Mechanics and Dynamics (ENPH 225), Queen's University (Jan. 2017 - Apr. 2017)

- Marked midterms and assignments for the 2nd-year Mechanics and Dynamics course

Numerical Methods (APSC 100), Queen's University (Sept. 2016 - Dec. 2016)

- Co-instructed tutorials teaching numerical analysis using MATLAB to 1st-year students
- Marked assignments and quizzes on engineering design and numerical methods

SELECTED AWARDS AND RECOGNITIONS

- James H. Rattray Memorial Scholarships in Applied Science, Queen's University (2016)
- Natural Science and Engineering Research Council of Canada Undergraduate Student Research Award, Queen's University & NSERC (2016)
- Osler, Hoskin & Harcourt LLP Achievement Award (2013 & 2014 & 2015 & 2016)
- Queen's University Dean's Scholar (2014 & 2015 & 2016 & 2017)
- Physics Department Award, Queen's University (2015)

TECHNICAL SKILLS

- SolidWorks CAD Modelling
- SolidEdge CAD Modelling
- MATLAB Programming and Modelling
- Arduino & C Programming
- LabVIEW Programming
- XFOIL & XFLR5
- Aircraft design, performance, and dynamics analysis
- Aircraft system identification and modelling
- LaTeX