**William Joseph Koehrsen**

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**EDUCATION**

**Case Western Reserve University,** Cleveland, OH

**Bachelor of Science in Engineering, Aerospace** Expected Graduation: **May 2018**

**Bachelor of Science in Engineering, Mechanical** Cumulative GPA: **4.00**

**Master of Science in Engineering, Aerospace** Expected Graduation: **December 2018**

Minor, Materials Science and Engineering

**Relevant Coursework**: Aero/gas dynamics, fluid mechanics, mechanical analysis, numerical methods, heat transfer, flight mechanics, orbital dynamics, statics, design of fluid thermal elements, aerostructures

**Awards:** Michelson-Morley STEM Scholarship recipient, Mortar Board honor society membership chair, Tau Beta Pi engineering honor society member, National Merit Scholar Commended

**WORK EXPERIENCE**

**NASA Aerospace Engineer Intern,** Huntsville, AL **January 2017-Present**

* Working on guidance, control, and mission analysis for NEA Scout mission launching on EM-1
* Responsible for verification and validation of guidance and control Matlab/Simulink model
* Performed data analysis in Python and several trade studies for solar sailing missions

**Air Force Research Lab Aerospace Researcher Intern,** Kirtland AFB, NM **June – August 2016**

* Developed and ran computational fluid dynamics simulations using OpenFOAM and CFD++
* Designed CAD model of testing equipment for evaluation of prototypes and validation of CFD
* Wrote MATLAB code to analyze and visualize experimental wind tunnel testing data

**Private Tennis Instructor,** Metamora, IL **Summers 2012-2015**

* Trained high school varsity level tennis players, managed extensive schedule
* Certified Illinois High School Association tennis coach, volunteer assistant at local high school

**PRESENTATIONS/ PUBLICATIONS**

* Koehrsen, W. J., and Tam, C.-J., “Design of a Water Table for Qualitative Flow Visualization Around Hemispherical Turret” presented at the Directed Energy Professional Society Systems Symposium in September 2016
* Koehrsen, W. J., and Tam, C.-J., technical paper (title sensitive) presented and published at the JANNAF Modeling and Simulation subcommittee meeting in December 2016

**LEADERSHIP/ EXTRACURRICULAR ACTIVITIES**

**Baja SAE Team**, Case Western Reserve University

* Member of team competing in international rally car design and build competition
* Working on CAD modeling and manufacturing suspension/steering subsystem

**NASA Robotic Mining Competition Team**, Case Western Reserve University

* Member of team competing in NASA sponsored robotic mining competition
* Working on developing, modeling, and constructing excavation system mechanical components

**Design-Build-Fly Team,** Case Western Reserve University

* Member of team involved in national AIAA aircraft design and fabrication competition
* Designed CAD model of aircraft fuselage and oversaw fabrication of the aircraft

**Civic Engagement and Learning Scholar**, Case Western Reserve University

* Leader of weekly volunteer group to Case Western University farm
* Honored by Center for Civic Engagement and Learning for service and community involvement

**TECHNICAL SKILLS**

* Proficient with experimental data analysis, visualization, and modeling with Python and Matlab
* Working experience with grid generation, solving, and post-processing CFD simulations
* Systems Tool Kit (STK) Master: Level 2 certified; Solidworks CAD modeling software associate
* Experienced with electronics, materials science, physics, and mechanical laboratory equipment
* Competitive Ultramarathon runner: numerous podium finishes, personal best 66 miles in 12 hours