William Joseph Koehrsen
223 N Lakeview Dr. East Peoria, Il 61611
wjk68@case.edu • (309)-453-1529

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