**William Joseph Koehrsen**

East Peoria, Il • wjk68@case.edu • (309)-453-1529

LinkedIn: <https://goo.gl/5Ob9h8>

**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**

**Udacity Data Analyst Nanodegree GitHub Portfolio:** <https://goo.gl/eOGnvA>

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

**WORK EXPERIENCE**

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

* Worked 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 and numerous trade studies for solar sailing missions using Python

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

* Developed and ran supersonic CFD simulations on aircraft geometries in OpenFOAM/CFD++
* Designed CAD model and oversaw fabrication of experimental testing equipment currently in use
* Wrote MATLAB and Python code to analyze experimental data from wind tunnel testing

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

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

**LEADERSHIP/ EXTRACURRICULAR ACTIVITIES**

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

* Design and fabrication engineer on top-25 nationally placing rally car design and build team
* Designed, CAD modeled, and fabricated steering/suspension subsystem in eight months

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

* Developed, modeled, and worked on construction of excavation system mechanical components

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

* Designed CAD model of aircraft fuselage for national AIAA design and fabrication competition
* Oversaw successful fabrication and flight testing of the aircraft

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

* Leader of weekly volunteer group to Case Western University farm, 60+ hours of service per year
* Honored by Center for Civic Engagement and Learning for service and community involvement

**PRESENTATIONS/ PUBLICATIONS**

* Koehrsen, W. J., and Tam, C.-J., “Design of a Water Table for Qualitative Flow Visualization Around Hemispherical Turret” presented at the DEPS 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

**TECHNICAL SKILLS**

* Working experience with CFD software, Solidworks, Microsoft Office, Git, SVN, STK
* Proficient with Python, Matlab, and R for statistical analysis, modeling, and data visualization
* Systems Tool Kit (STK) Master: Level 2 certified; Solidworks CAD modeling software associate
* Experienced with electronics, materials science, physics, and mechanical laboratory equipment

**AWARDS**

* Michelson-Morley STEM Scholarship recipient, Mortar Board honor society membership chair, Tau Beta Pi engineering honor society member, National Merit Scholar Commended
* Competitive Ultramarathon runner: numerous podium finishes, personal best 66 miles in 12 hours