**William Joseph Koehrsen**

Cleveland, OH • 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 Degree, Completed May 2017 GitHub Portfolio:** <https://goo.gl/mc5p4N>

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

**WORK EXPERIENCE**

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

* Worked on guidance, control, and mission analysis for NEA Scout satellite launching on EM-1
* Responsible for validation of Attitude Control Matlab/Simulink model and hardware/sensors tests
* Developed scripts to model mission concept of operations in MATLAB and 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 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 Solidworks, Microsoft Office, Git, SVN, STK, CFD software
* Proficient with Python, Matlab, and R for statistical analysis, modeling, and data visualization
* Systems Tool Kit (STK) Master Certified; Solidworks CAD modeling software associate
* Experienced with electronics, materials science, physics, and mechanical laboratory equipment

**AWARDS**

* NASA Space Apps Challenge Huntsville Hackathon second place
* Tau Beta Pi engineering honor society member, National Merit Scholar Commended
* Competitive Ultramarathon runner: numerous podium finishes, personal best 66 miles in 12 hours