

William Joseph Koehrsen
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EDUCATION

Case Western Reserve University, Cleveland, OH

Bachelor of Science in Engineering, Aerospace

Bachelor of Science in Engineering, Mechanical

Master of Science in Engineering, Aerospace

Udacity Data Analyst Nanodegree

Expected Graduation: **May 2018**

Cumulative GPA: **4.00**

Expected Graduation: **December 2018**

GitHub Portfolio: <https://goo.gl/eOGnvA>

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 2017-Present

- 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
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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
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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
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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
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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