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**

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