

Mikihisa Yuasa

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EDUCATION

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- 9/2017-Present **University of Wisconsin-Madison**, Madison, WI
B.S. Engineering Mechanics, expected May 2021 (Present GPA: 3.69)
- 4/2017-8/2017 **Keio University**, Tokyo, Japan
Studied mechanical engineering at the College of Science and Technology

RESEARCH EXPERIENCE

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- 5/2018-Present **University Wisconsin-Madison Department of Engineering Physics**, Madison, WI.
Student Research Assistant in Dr. Jennifer Franck's Computational Fluid Dynamics Lab
- Built an algorithm to dynamically generate meshes around bioinspired structures for CFD during flow simulation to reduce mesh development time and computational effort.
 - Implemented the algorithm above as an opensource software library for a CFD simulation solver.
 - Led a project to reduce mesh generation time of a toolbox for conformal structural airfoil meshes.
- 9/2019-Present **University of Wisconsin-Madison Department of Civil Engineering**, Madison, WI.
Student Research Assistant in Dr. Bin Ran's Connected Automated Vehicle and Highways Lab
- Executed macroscopic simulations on mixed traditional and automated traffic under the snow between Madison, WI and Chicago O'Hare Airport.
 - Initiated a project to build a car-following model for automated vehicle platoons with assigned costs.
 - Evaluated the network capacity for peak hours on highways in Madison, WI.
- 10/2017-5/2018 **University of Wisconsin-Madison Department of Astronomy**, Madison, WI
Student Research Assistant of Dr. Ralf Kotulla
- Improved Python codes for analysis of sky-image data.
 - Executed data analysis and image processing and discovered candidates of unfound asteroids and their coordinates.

PRESENTATION

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- Yuasa, M. (2018). Save the World by Discovering New Asteroid. Poster presented at the *20th Annual Undergraduate Symposium at the University of Wisconsin-Madison*. Madison, WI.

AWARDS & FELLOWSHIP & SCHOLARSHIP

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| 2020 | Hilldale Undergraduate/Faculty Research Fellowship. \$4,000 |
| 2017-Present | Japan Student Services Organization Student Exchange Program (Undergraduate Scholarship for Degree Seeking Students). \$174,000 [18,200,000 JPY] |
| 2018-19 | Engineering Physics Department Scholarship. \$1,000 |
| 2018 | UW-Madison Undergraduate Scholarship for Summer Study. \$1,500 |

SKILLS

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| Programming | C++, MATLAB, Python, LaTeX, EES, R, Rust, C#, JavaScript, CSS |
| Software | SolidWorks, ANSYS, OpenFOAM, ParaView, PTV Vissim, Pointwise, Tecplot, UNIX |
| Languages | Japanese (Native), French (Business-level for writing, reading, and speaking) |