

Mikihisa Yuasa

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EDUCATION

- 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

- 5/2018-Present **University Wisconsin-Madison Department of Engineering Physics**, Madison, WI.
Student Research Assistant at Professor Jennifer Franck's Computational Fluid Dynamics Lab
- Built an algorithm to dynamically generate meshes around bioinspired structures for CFD.
 - Developed a library that optimize CFD simulation workflows of the pre-existing method.
 - Led a project on optimizing a toolbox that generates airfoil meshes for numerical analysis.
- 9/2019-Present **University of Wisconsin-Madison Department of Civil Engineering**, Madison, WI.
Student Research Assistant in Professor Bin Ran's Connected Automated Vehicle Lab
- Executed macroscopic simulations on mixed traditional and automated traffic under the snow.
 - Initiated 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 for finding new asteroids.
 - Discovered candidates of unfound asteroids and their coordinates.

PRESENTATION

- 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.

GRANTS

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

SKILLS

Programming	C++, MATLAB, Python, LaTeX, EES, R, Rust, C#, JavaScript, CSS
Software	Solidworks, ANSYS, OpenFOAM, ParaView, Pointwise, Tecplot, PTV Vissim, UNIX