

# 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

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

## SKILLS

<b>Programming</b>	C++, MATLAB, Python, LaTeX, EES, R, Rust, C#, JavaScript, CSS
<b>Software</b>	SolidWorks, ANSYS, OpenFOAM, ParaView, PTV Vissim, Pointwise, Tecplot, UNIX