

Julian Skifstad

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EDUCATION

University of Michigan – GPA: 3.9

Ann Arbor, MI

Major in Robotics – Minor in Mathematics

Class of 2026

Relevant Coursework: Computational Linear Algebra, Solar Energy and Self Powered Wireless Systems, Intro Human-Robot Systems, Linear Algebra, How to Build Robots and Make Them Move, Data Structures and Algorithms, Introduction to Analysis, Introduction to Dynamics and Vibrations

- William J. Branstrom Freshman Prize for Academic Excellence

PROJECT EXPERIENCE

Development of a Commercial Drone Platform for Astronomy Applications

Ann Arbor, Michigan

Research Assistant

8/28/23 - Present

- Worked under Dr. John Monnier, Professor of Astronomy, to develop a formation flying drone platform for in-atmosphere interferometry.
- Designed and conducted tests to measure the localization precision for high end commercial drones.
- Analyzed the collected data using python to assess the results of the tests, plotting the GPS data and calculating the discrepancy between the drones' localization data and my physical measurements.

Solar Energy and Self Powered Wireless Systems - Final Project

Ann Arbor, Michigan

Team Member

9/01/22 - 12/16/22

- Designed a self-powered device that automatically watered a houseplant, collected and wirelessly transmitted data, and was fully powered by solar energy
- Constructed a working prototype of the design, which implemented a motor, bluetooth module, multiple sensors, and a solar cell and MPPT, using an Arduino and breadboard
- Researched a potential market for the device as if it were being sold by a startup

Computational Linear Algebra - Regression: Precipitation in Alaska

Ann Arbor, Michigan

Independent

10/18/22 - 11/11/22

- Built a mathematical model in Julia to predict precipitation in Alaska using Least Squares Regression and Radial Basis Functions.

WORK EXPERIENCE

Instructional Aide

Ann Arbor, Michigan

Intro Human Robot Systems

8/28/23 - Present

- Led a lab section, held office hours, and facilitated make-up labs.
- Provided feedback on assignments before they were posted, improving clarity.
- Assisted with grading student submissions.

EXTRACURRICULAR EXPERIENCE

Study Abroad - Engineering in Buenos Aires

Buenos Aires, Argentina

Student

5/18/23 - 7/1/23

- Attended Instituto Tecnologico de Buenos Aires (ITBA) to take Physics II with lab.
- Traveled all around Argentina, visiting Iguazú Falls, El Calafate and El Chaltén in Patagonia, and Neuquen. Also visited Colonia Del Sacramento in Uruguay.
- Lived with a host family which significantly improved my Spanish speaking abilities, and provided a very meaningful cultural experience.

SKILLS

Computer Programming: C++, Julia, Python, Java, Arduino IDE, STM32cube IDE, Matlab

Computer Aided Design: Fusion 360, Catia, Onshape.

Miscellaneous: Working Proficiency in Spanish, Chauffeur's License (with experience driving trailers).

INTERESTS & ACTIVITIES

Solo Pianist

2008 – Present

Soccer Player

2009 – 2022