Chase VanSickle | Aerospace Engineering M.S.

Cincinnati, OH, 45202 • (616) 826-9300 • chasickle@gmail.com • linkedin.com/in/chasevansickle

TECHNICAL SKILLS

CATIA || AutoDesk Inventor || ANSYS Workbench || Python || Microsoft Office Suite || Adobe Suite || LabView || LaTeX

M.S. in Aerospace Engineering (with focus in Fluid Dynamics & Propulsion) at the University of Cincinnati, with a B.S.E. in Mechanical Engineering from Oakland University. Blending a technical foundation in research, mechanical design, and computational modeling with the discipline of a Division 1 athlete, I excel at leading and collaborating with teams, tackling complex problems, and presenting with confidence.

EDUCATION

M.S. Aerospace Engineering – *University of Cincinnati, Cincinnati, OH* ***August 2025***

B.S.E. Mechanical Engineering – *Oakland University, Auburn Hills, MI* ***April 2022***

Extracurricular Activities:

- University of Cincinnati (2022-2023) and Oakland University (2018-2022) Men's Track and Field Team
- New Membership Chair of Tau Beta Pi - The Engineering Honor Society (Michigan Theta Chapter) (2021-2022)
- Student Athletic Advisory Committee (SAAC) – Oakland University (2021-2022)

PROFESSIONAL EXPERIENCE

University of Cincinnati: ***Research Assistant*** – Cincinnati, OH ***Jan. 2023 – Sept. 2025***

- Thesis on "Boundary Layer Control with Shallow Spanwise-Sweeping Jet Injection", quantifying the effects of jet injection on boundary layer height, displacement thickness, momentum thickness, and shape factor on a flat plate boundary layer; Developed and optimized experimental methodology, designing wind tunnel experiments and computational simulations to investigate boundary layer control using wall jets.
- Independently led end-to-end test development, including design, experimental setup, execution, data processing and analysis (using Python), and then optimization to refine and enhance study outcomes for more efficient experimentation.
- Provided empirical evidence supporting the use of skew-angled, shallow-inclined wall jets as an effective flow control technique specifically in the area of boundary layer control for aerospace applications.
- Research funded by Northrop Grumman and presented at the American Institute of Aeronautics and Astronautics (AIAA) AVIATION Flow Control Open Forum (2023 & 2024), Technical Paper session (2024), and Dayton-Cincinnati Aerospace Sciences Symposium (2024).

Oasis Advanced Engineering: ***Associate Research Engineer Intern*** – Lake Orion, MI ***May 2021 - Aug. 2022***

- Collaborated with senior engineers in the development of training systems for the Bradley fighting vehicle and Abrams tank for use by the United States military, using AutoDesk Inventor and Creo.
- Organized and consolidated parts lists in Excel to support trainer assembly development and assist with relocation of the company.
- Performed analysis on temperature and humidity chamber to ensure certain parts met military testing standards.

C.G. Witvoet & Sons: ***Production Worker*** – Grand Rapids, MI ***May - Sep. 2019***

- Created and implemented strategies for improving operational efficiency and accuracy.
- Assembled products for 12+ stores per day according to changing daily work orders and specific customer needs.

AWARDS & HONORS

- Graduate Incentive Scholarship Award **2022-2025**
- Ally Sidloski Bearcats STRONG Award **2022-2023**
- American Athletic Conference Indoor Track and Field Team Champion **2023**
- Horizon League Track and Field All-Conference **2019, 2021**
- Horizon League Indoor Track and Field Freshman Athlete of the Year **2019**
- Fall/Winter Semester Academic Honors, Oakland University **2018-2021**
- Recipient of Presidential Scholarship, Oakland University Honors College **2018-2022**