

Noah Osman

Expert in computational physics and data analysis

Contact Information

Address

3930 NW Witham Hill Dr
Corvallis, OR 97330

Phone

+1 (217) 414-5285

Email

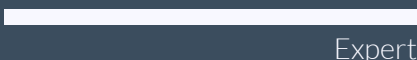
noah.a.osman@gmail.com

LinkedIn

linkedin.com/in/noahaosman

Tools & Software

Matlab



Expert

Fortran



Proficient

Python



Competent

C++



Competent

HTML/CSS/Javascript



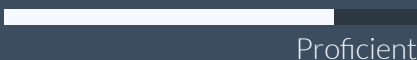
Competent

ANSYS



Basic

Fusion 360 CAD modelling



Proficient

Unix



Proficient

LaTeX



Proficient

Education

University of Illinois Urbana-Champaign

Master of Science in Aerospace Engineering

Urbana, IL

May 2021

- Advisor: Dr. Andres Goza
- Thesis: A time-explicit immersed boundary projection method for thin elastic surfaces and stationary bodies
- GPA: 3.32/4.00

Illinois State University

Bachelor of Science in Physics

Normal, IL

May 2018

Bachelor of Science in Computer physics

May 2018

- Minor in mathematics
- Honors graduate
- GPA: 3.89/4.00, *magna cum laude*

Research

University of Illinois Urbana-Champaign

Advisor: Dr. Andres Goza

Urbana, IL

August 2018 - Present

- Developed a novel time stepping method for simulating fluid-structure interaction problems.
- Simulated multiphysics systems using powerful numerical techniques (e.g., immersed boundary, finite element, projection methods, FFT).
- Analyzed and extracted pertinent physics from large data sets.
- Communicated complex ideas/data both individually and in presentation settings.

Research Projects:

- (i) N. Osman, A. Goza, "A time-explicit immersed boundary projection method for thin elastic surfaces and stationary bodies," to be submitted to JCP 2021.
- (ii) S. Balasubramanian, N. Osman, A. Goza, "Harnessing Phononic Materials to Passively Control Unsteady Flows," work in progress.

Presentations:

- (i) N. Osman, A. Goza, "An Efficient Immersed-Boundary Formulation with Explicit Time Stepping for Incompressible Flows," 72nd Annual Meeting of the APS Division of Fluid Dynamics. Seattle, Washington. 2019.

Illinois State University

Advisor: Dr. George Rutherford

Normal, IL

August 2016 - May 2018

- Designed, wrote, and analyzed data of a high-fidelity simulation of the Malkus-Lorenz chaotic water wheel.

Honors & Awards

Physics Outstanding Graduating Senior	2018
Skadron Award in Computational Physics, 1 st place	2017
Physics Alumni Scholar Award	2014
Honors Scholarship	2014
Redbird Academic Scholarship	2014

Teaching

University of Illinois Urbana-Champaign

Urbana, IL

Teaching assistant to Dr. Daniel Bodony (AE 312, Compressible Flow)

January - May 2020

- Developed solutions to all homework and exams and managed two undergraduate graders.
- Held weekly discussions advising and communicating concepts in a lecture-style format.

Lab Instructor/Teaching assistant to Dr. Brian Woodard (AE 460, Aerodynamics & Propulsion Lab)
2018

August - Dec

- Instructed students on experimental fluid dynamics.
- Supervised laboratory sessions and maintained equipment.

Illinois State University

Normal, IL

Teaching assistant for undergraduate courses (PHY 102, 105, & 109)

August 2016 - May 2018

- Instructed students on fundamental principles of electrostatic and Newtonian physics.
- Supervised laboratory sessions and maintained equipment.

Physics tutoring

August 2016 - May 2018

- Managed a group of six undergraduate tutors and volunteered several hours per week.

ISU Physics Club President

August 2017 - May 2018

- Planned, organized, and led events/demonstrations designed to convey fundamental physical principles.