

Samuel W. Albert, PhD

📍 Washington, DC 📩 samuelalbert21@gmail.com ☎ (615) 260-6341 🔒 TS/SCI Clearance

Education

PhD	University of Colorado Boulder , Aerospace Engineering Sciences Advisor: Dr. Hanspeter Schaub, Dr. Bobby Braun <ul style="list-style-type: none">• <i>Aerocapture, Entry, and Co-Delivery in Uncertain Planetary Atmospheres</i> ↗• NASA Space Technology Research Fellow• Five first-author papers in peer-reviewed journals• <i>John A. Vise Award</i> ↗	Boulder, CO May 2020 – Sept 2023
MS	University of Colorado Boulder , Aerospace Engineering Sciences <ul style="list-style-type: none">• Graduate Certificate in Astrodynamics and Satellite Navigation Systems• <i>Matthew Isakowitz Fellow</i> ↗	Boulder, CO Aug 2018 – May 2020
BS	Purdue University , Aeronautical and Astronautical Engineering Honors College Graduate <ul style="list-style-type: none">• Minor: Global Engineering Studies• Exchange semester at Universidad de Carlos III, Madrid, Spain• <i>Stamps Scholar</i> ↗ (full-ride scholarship)	West Lafayette, IN Aug 2014 – May 2018

Experience

Johns Hopkins University Applied Physics Laboratory , Senior Aerospace Engineer <i>Director's Special Achievement Award, Sept. 2025</i>	Laurel, MD Sept 2023 – present
NASA , Visiting Technologist/Intern (multiple) Research collaboration with NASA Langley and NASA JPL; Summer 2019 intern at JPL <ul style="list-style-type: none">• Co-developed novel guidance algorithm for drag-modulated aerocapture and implemented in C++ for use in DSENDS aerocapture simulation• Performed flight-mechanics analysis and trajectory design for the Small High Impact Energy Landing Device (SHIELD) concept• Designed aerocapture trajectories for Uranus orbiter "A Team" pre-decadal study	Remote / Pasadena, CA 2019-2022 (various)

Selected Publications

Dimensionality Reduction for Onboard Modeling of Uncertain Atmospheres Samuel W. Albert, Alireza Doostan, Hanspeter Schaub 10.2514/1.A35839 ↗ (AIAA Journal of Spacecraft and Rockets)	2025
Energy Reference Guidance for Drag-Modulated Aerocapture Samuel W. Albert, Ethan Burnett, Hanspeter Schaub, P. Daniel Burkhardt, Alex Austin 10.1016/j.asr.2023.09.034 ↗ (Advances in Space Research)	2023
Relative Motion in the Velocity Frame for Atmospheric Entry Trajectories Samuel W. Albert, Hanspeter Schaub 10.2514/1.A35753 ↗ (AIAA Journal of Spacecraft and Rockets)	2023