

# Simon Hans Edasi

801-833-1759 | [simonhansedasi@gmail.com](mailto:simonhansedasi@gmail.com) | [simonhansedasi.github.io](https://simonhansedasi.github.io)

---

## Summary

I combine the inquisitive spirit of a scientist with the precise skill of a maintenance technician form a unique skillset capable of achieving anything. My background lies in geophysics, statistics, and data science, and I seek to tackle complex problems facing our communities. Experienced in fast paced environments and prioritizing for deadlines, I am seeking a challenge for which to apply my skills and help others.

---

## Skills

**Technical Skills:** Machine learning & neural networks, data pre-processing, data analysis & visualization, statistical analysis  
**Scripting:** Python (*GeoPy*, *SciPy*, *pandas*, *numpy*, *matplotlib*, *tensorflow*); R (*car*, *dplyr*, *ggplot2*, *plotly*); Jupyter; Git  
**Soft Skills:** Strategic problem solving, communication, task prioritization, collaboration, research & development

---

## Education

### University of Washington

June 2024

*Master of Science in Earth & Space Sciences – GPA: 3.75*

*Seattle, Washington*

- Project manuscript in publication submission: "A Data Driven Estimate of Glacier Thicknesses Reveals the Influence of Ice Shelves and Other Ocean Interactions"
- Created combined dataset from sparse glacier thickness surveys and surface features from a global catalog.
- Established thresholds of reliability of matched data to be used in regression analysis. Time differences between datasets may make some thickness measurements unreliable for a measured surface area.
- Employed neural networks and leave-one-out cross-validation to perform regression analysis with mean thickness as the target variable and remotely-sensed surface attributes as independent variables.
- Contributed to existing knowledge by highlighting impacts of glacier termination dynamics on distributions of glacier ice thickness, a fact frequently overlooked in glacier modeling.

### University of Washington

March 2019

*Bachelor of Science in Earth & Space Sciences: Physics – GPA: 3.37*

*Seattle, Washington*

- Minor: Mathematical Physics, Estonian
- Dean's list for five quarters, and annual dean's list 2014-2015.
- Course work in continuum mechanics, geophysics, electromagnetism, thermodynamics, linear algebra, and differential equations.

---

## Specialized Coursework

### Photonic Sensing | *Anomaly Detection, Data Visualization*

- Studied fundamentals of optical physics in application of distributed seismic sensing using optical fiber networks.
- Wrote code to automate filtering of raw data collected by Distributed Acoustic Sensing equipment connected to dark commercial fiber under Seattle, WA. Filtered data was then used to analyze city traffic patterns.

### Statistical Inferences in Ecology | *Statistical Analysis and Inference, Data Visualization*

- Studied experimental design and a multitude of tests and methods to determine statistical significance in data.
- Employed statistical analysis methods using R software suite to answer questions of ecological importance.

### Geoscience Communication | *Writing, Presenting, and Communicating Ideas*

- Developed writing skills to convey complex ideas in different styles and applications.
- Collaborated with classmates on a capstone research project and presentation discussing the future of energy.

### Geophysical Continuum Mechanics | *Geophysics, Strategic Problem Solving*

- Applied constitutive laws of stress and strain to the context of geological materials and the Earth's lithosphere.

### Seismology | *Geophysics, Spatial Reasoning*

- Examined stress and strain, the wave equation, travel times, amplitude and phase, reflection seismology, surface waves, and source theory, including moment tensors, radiation patterns, far-field wave shapes, source spectra, stress drop, and magnitude.

## Work Experience

---

### University of Washington

2019 - 2022

*Research Assistant, Supervisor: Dr. Alexis Licht*

*Seattle, WA*

- Powdered, weighed, and de-carbonated paleosol rock samples. Measured organic and inorganic carbon content for analysis and paleoclimate reconstruction.
- Contributed data for published article: "Proto-monsoon rainfall and greening in Central Asia due to extreme early Eocene warmth"

### University of Washington

2017 - 2022

*Administrative Assistant / Accounts Receivables Clerk*

*Seattle, WA*

- Created, administered, and collected invoice payments for lab work by UW Earth & Space Sciences IsoLab, Geochemistry Lab, Microprobe, and World Wide Lightning Location Network.
- Managed department financial records: Responsible for assembling, completing, and reconciling paperwork for transactions; maintained in-office records and interacted with archival records as needed for audit.
- Developed tool for managing online budget reconciliation status and email notification automation.

### U.S. Air Force

2008 - 2014

*AWACS Communication and Navigation Craftsman & Isochronal Inspection*

*Elmendorf AFB, AK; Tinker AFB, OK*

- Maintained communication and navigation equipment on board the Airborne Warning And Control System.
- Awarded Air Force Achievement Medal for no-notice deployment to Kadena Airbase, Japan in support of Operation Vigilant Ace following the 2010 Yeonpyeong bombardment.
- Managed secret cryptographic programs responsible for safety of assets and flightcrew during operations
- Executed annual inspection of all communication and navigation equipment on board fleet of AWACS aircraft to ensure long-term operability.
- Attended Airman Leadership School for promotion to Staff Sergeant, and achieved craftsman maintenance skill level, capable of clearing aircraft as safe to fly.
- Trained, mentored, and supervised junior airmen, directly responsible for on the job training and professional development.

### Nibley Park Golf Course

2006 - 2008

*Driving range and fairway ranger*

*Salt Lake City, UT*

- Responsible for collecting, washing, and maintaining supply of driving range golf balls. Also responsible for cleanliness and availability of golf carts and push carts.
- Fast paced environment, strategic problem solving, prioritization of tasks, customer service.

## Service

---

### University of Washington Graduate and Professional Student Senate

Oct 2022 – June 2024

*Senator*

*Seattle, Washington*

- Legislated in the UW Graduate and Professional Student Senate representing the rights and interests of over 15,000 graduate and professional students at the University of Washington. Procured funding for two departmental retreats and a picnic table to socialize on the department patio.

### UAW 4121 Academic Student Employee Union

Oct 2023 – May 2024

*Contract Campaign Captain and Strike Captain*

*Seattle, Washington*

- Recruited student employees in departments across campus to join the union ahead of contract bargaining, and helped rally student employees to strike when bargaining failed to reach a fair contract.

### Whale Scout

2023

*Landscaper*

*Seattle, Washington*

- Volunteered to plant bushes and shrubs on an abandoned golf course. This project is meant to restore natural waterways that support local salmon populations and ultimately orcas in the Puget Sound.

### Airmen Against Drunk Driving

2009 - 2012

*Driver, Dispatcher*

*Elmendorf AFB, AK*

- Received calls and offered rides for hot-line for airmen to call for a free ride home to prevent drunk driving.