CURRICULUM VITAE

HANNAH K. KOVIC

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PRIMARY RESEARCH INTERESTS

Structural geology and tectonics, mountain-building processes, potential fields geophysics, critical minerals, thermochronology, deformation rates, exhumation history, landscape and topographic evolution.

NATIONALITY—PA, UNITED STATES
CURRENT RESIDENCE— WY UNITED STATES



EDUCATION

May 2025 **B.S. Geology** *Magna Cum Laude* | University of Pittsburgh | Pittsburgh, PA, USA
Cumulative GPA 3.679 / 4.00 | Geology GPA 3.789 / 4.00
Thesis Discipline & Advisor: *Tectonics & Structural Geology*, Dr. Nadine McQuarrie

Jun 2020 **High School Diploma** *High Honors Distinction*
Unionville High School | Kennett Square, PA, USA

SUMMARY OF TECHNICHAL SKILLS & CERTIFICATIONS

Data Projection & Analysis	*ArcGIS Pro, MATLAB, Microsoft Suite*
Modeling	*Pecube-D, Move PetEx, MATLAB,*
Laboratory Methods	*ESR (SAR, ITD, Magnet Tech); OSL & IRSL (Riso); FRANTZ, Thin Section Analysis*
Data Acquisition & Field Methods	*LaCoste and Romberg gravimetry, Thermochron sampling, Oriented AMS sampling (drill & hammer), Magnetic Susceptibility, Structural mapping (Brunton)*
Certifications	*Wilderness Advanced First Aid (WAFA), CPR, NOLS Outdoor Leadership*

RESEARCH EXPERIENCE

Aug 2026—Present **University of Wyoming, Department of Geology & Geophysics *Research Assistant***
- Data compilation and projection
- Bouguer gravity survey and data analysis (*Bouguer Gravimeter*)
- Subsurface reconstructions (*MovePetEx, Oasis Montaj*)

Aug 2023—July 2026 **University of Pittsburgh, Department of Geology & Environmental Science *Research Assistant***
- Data compilation and projection (*ArcGIS Pro, Python, Microsoft Suite*)
- Hypothesized and tested four balanced cross section geometries and kinematics (*Move PetEx*)
- 2D Flexural kinematic forward modeling flexural isostacy and erosion (*Move PetEx*)
- 2D Thermokinematic advection diffusion modeling thermal cooling history (*Pecube-D, MATLAB*)

LAB EXPERIENCE

Sep 2025—May 2026 **University of Lausanne, Institute of Earth Surface Dynamics *Lab Intern***
- ESR, OSL, and IRSL trap charge thermochronometry performed on 14 rock samples to constrain Taiwan's tectonic evolution and exhumation history.
- Cutting, crushing, sieving, chemical treatment, SPT density separation, magnetic separation (*FRANTZ*)
- ESR experiments (*Irradiation SAR-Additive & Annealing ITD*), ESR measurements (*Magnet Tech*)
- OSL & IRSL experiments (*Riso*), OSL & IRSL measurements (*Riso*)
- Data plotted and analyzed (*MATLAB, Microsoft Suite*)
- Data release and publication (*in prep*)

FIELD EXPERIENCE

Jun 2026 **U.S. Geological Survey, EarthMRI, NE Washington (USA)—*Field Assistant***
Geophysical survey using LaCoste and Romberg gravimeter, Magnetic survey via Magnetic Susceptibility meter, Sample collection for critical mineral exploration & thermochron, Structural geology study of major faults in NE Washington, Oriented sampling for AMS (drill and hand samples).

Aug 2025 **U.S. Geological Survey, EarthMRI, NE Washington (USA)—*Field Assistant***
Geophysical survey using LaCoste and Romberg gravimeter, Sample collection for critical mineral exploration & thermochron, Structural geology study of major faults in NE Washington

Mar 2025 **University of Pittsburgh, Taiwan Field Excursion—*Field Investigator***
2-week field investigation. Geologic and structural mapping, collected samples for ESR, OSL, and IRSL thermochronometry. Structural data collection and projection using paper maps and ArcGIS Pro. NSF-funded.

May 2024—Jun 2024 **Idaho State University—*Student***
5-week field course in Idaho. Applied skills in field surveying, structural mapping, GIS and remote sensing, hydrology, sedimentology, and igneous metamorphic petrology. Full letter of acquired skills provided upon request.

May 2023 **University of Pittsburgh—*Student***
4-week field course in the Indian Himalayas. NOLS outdoor leadership certification, Wilderness Advanced First Aid Certification, CPR Certification, Leave No Trace Certification.

TEACHING EXPERIENCE

Aug 2024—Dec 2024 **University of Pittsburgh Lab Teaching Assistant**—***Mineralogy***
Conducted hand sample and thin section identification, sample organization, and thin section preparation with rock saws for the Mineralogy Lab course.

Aug 2024—Dec 2024 **University of Pittsburgh Lab Teaching Assistant**—***Sedimentology & Stratigraphy***
Assisted with lab instruction, taught field skills in sedimentology, stratigraphic measurement (with Jake Staff), sedimentary rock identification and classification, soft rock structural identification, and historical geologic analysis.

Jan 2024—May 2024 **University of Pittsburgh Lab Teaching Assistant—*History of Earth***
Assisted with lab instruction, taught geologic field methods, sedimentary stratigraphy, rock and mineral identification, and historical geologic analysis.

CONFERENCES & PUBLICATIONS

H. Kovic, N. McQuarrie, M. Braza, S. Kosowsky, Ping-Chen Chiang, Sayan Das, Kaj M. Johnson, Brian J. Yanites (2026). *Hypothesizing Taiwan's subsurface structural geometries and evolution using flexural-kinematic and thermokinematic modeling techniques,* Tectonics, (in review).

C. Glover, C. Ruggles, **H. Kovic**, L. Staisch, (2026). Gravity survey along two cross-section lines in Northeastern Washington State, USGS Data Release, (in prep).

G. King & **H. Kovic**, N. McQuarrie, A. Dave (2026). *Dates and rates—constraining the recent exhumation history of Central and Southern Taiwan as revealed by low temperature trap charge thermochronometry*, (in prep).

H. Kovic, N. McQuarrie, S. Kosowsky, (2025). *Hypothesizing Taiwan's subsurface structural geometries and evolution using flexural-kinematic and thermochronometric modeling techniques* (Thesis Manuscript).

H. Kovic, Nadine McQuarrie, P-C Chiang, S. Das, K.-M. Johnson, B.-J Yanites, (2024). *Structural drivers for fault-driven topographic uplift in central Taiwan.* ID#1598474. American Geophysical Union Fall Meeting, December 2024, Washington DC. (Abstract & Poster)

AWARDS, DISTINCTIONS & ACADEMIC GRANTS

May 2025 ***Magna Cum Laude*** Honors status achieved upon graduation with a GPA >3.5

May 2025 ***Departmental Honors*** GPA > 3.25, research credits >3, write and defend a graduate-equivalent thesis.

Dec 2023–May 2025 ***Dean's List*** Awarded by semester. Minimum 12 letter grade credits with a term GPA of at least 3.50

May 2024 ***Norman K. Flint Field Scholar Award*** $1700 USD
Academic grant awarded to field geologists based on academic merit.

Oct 2022 ***Pitt Green Fund Sustainability Grant*** $100 USD

Plantsburgh Sustainability Project: Increased greenery on the University of Pittsburgh Campus, hosted an educational event, and presented findings at the annual Pitt Sustainability Symposium