

Alex Horvath

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EDUCATION

University of Wisconsin – Madison *Bachelor of Science* in Materials Science and Engineering May 2019

Zoet and Marcott Labs (Geosciences) – University of Wisconsin–Madison 09/14 – 05/19

- Designed experiments for measurement of activation energy of stress mechanisms in glacial ice. Fabricated equipment using variety of hand tools and machine shop equipment.
- Collection and processing of glacial erratic samples from the Adirondack Mountains.
- Stocked inventory, managed lab budget, maintained lab environment.
- Completed graduate level courses in glacial mechanics and attended graduate seminars in regional glacial geology.
- Awarded Hilldale-Holstrom Research Fellowship.

Relevant Coursework

- Introduction to Programming with Python (Southern Connecticut State University).
- Databases Applications and Design Using SQL (Gateway Community College)

Advanced Coursework (Materials Science)

- Deformations of Materials: *Stress Mechanisms, Mechanical Behavior of Materials*
- Transport Phenomena: *Navier-stokes Solutions, COMSOL Simulations*
- Introduction to Computational Methods in Materials Science: *Molecular Dynamics and Monte-Carlo Simulations*
- Electrical, Optical, and Magnetic Materials : *Electronic Band Structure Diagrams, Quantitative descriptions*

Capstone/Senior Design Project(s)

- Proposal of Novel Annealing Cycles for More Efficient Spheroidizing of 1043 and 1045 Steels: *Conceptualized novel Annealing Cycles and Mechanical Tested Specimens. Presented Results to Steel Manufacturer*
- Comparison of CFRP and WE43 alloy vs Traditional Steels and other Materials for use in Vehicle Components

RECOGNITION

Hilldale-Holstrom Undergraduate Research Fellowship *Material Properties of Debris-Laden Ice* 05/2016

WORK EXPERIENCE

Amazon Logistics (AMZL) Manager – Nashua, NH 6/20 – 01/21

- Planned Shifts, responded to associate concerns, responded to quality concerns, oversaw administrative duties such as punch-in and punch-out corrections, and remedies to warehouse issues.
- Monitored and improved flow of products through diagnosing package routing malfunctions and coordinated action with team leaders.
- Used excel, Amazon-designed programs, and other programs for shift analysis and reporting
- Accounted for warehouse inventory and condition at start of shift.
- Troubleshooted computers and ZEBRA devices

PROFESSIONAL SKILLS, SOFTWARE KNOWLEDGE

MATLAB, Python, R, SQL: Data analysis, constructing graphs statistical analyses, database management

DSC, FT-IR, XRD, Sputtering Chambers: Familiarity with materials testing and fabrication equipment

Lathe, CNC Mill, Drill Press, Micrometer, Hand Tools : Experience with technician equipment

REFERENCES

Lucas Zoet	Assistant Professor of Geosciences (Glaciology) University of Wisconsin-Madison	lzoet@wisc.edu
Shaun Marcott	Assistant Professor of Geosciences (Climatology) University of Wisconsin-Madison	smarcott@wisc.edu .
Dane Morgan	Harvey D. Spangler Professor of Engineering, Materials Science and Engineering	ddmorgan@wisc.edu
Izabela Szlufarska	Harvey D. Spangler Prof. of Eng., Dept. Chair, Materials Science and Engineering	szlufarska@wisc.edu