Alexander J. Horvath – CEO

EDUCATION

University of Connecticut *Graduate Student in Materials Science and Engineering (PhD.)* May 2027

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

Lee Lab – *University of Connecticut Dept. Of Materials Science and Engineering* *01/*22 - Present

- Nanoindentation of intermetallic compounds, and composite materials.
- FIB milling, fabrication of micropillars, micropillar compression experiments
- Data analysis of hysteresis behavior
- XRD of intermetallic compounds, morphology / plane determination
- Crystal growth of intermetallic compounds

Zoet and Marcott Labs – *University of Wisconsin – Madison* Sept. '14 – May '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
- Graduate level coursework in glacial mechanics and attended graduate seminars in regional glacial geology.

Advanced Coursework in Materials Science and Engineering

- Transport Phenomenon, Structures of Materials, Thermodynamics of Materials
- Failure Analysis, Materials Characterization, Ceramics, Classical Atomic-level simulations
- *Undergraduate*: Calculus III, Linear Algebra & Differential Equations, Statics, Dynamics, Mechanics of Materials, Deformations of Solids, Electrical Optical & Magnetic (EOM) Properties of Materials, Glacier Mechanics (Geosciences), General Physics, Statistics, Capstone (Steels Processing), others.

RECOGNITION

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

The Minerals, Metals & Materials Society (speaker) *Tension-Compression Asymmetry of BCC metals* 03/2024

WORK EXPERIENCE

Amazon Logistics (AMZL) Manager Full-time (40+ hours) - *Nashua, NH* 06/2020 – 06/2021

PROFESSIONAL SKILLS, SOFTWARE KNOWLEDGE

MATLAB, LAMMPS, EXCEL: Data analysis, molecular dynamics simulation.

XRD, FIB, PFIB, Micropillar Compression, Nanoindentation: Sample preparation and characterization / testing

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

SEM, TEM, HRTEM, Optical Microscopy: Experienced user in electron microscopy equipment.

EXTRACURRICULAR

UCONN Concert Band and Jazz Combos Tenor Saxophonist and Bass Clarinetist 01/22 – present

UW-Madison Rowing 13th in 3rd Varsity Eight at 2014 IRA regatta 09/13 – 01/15